



Docket No.: 077698-0012

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : **Customer Number: 20277**
James H. MCLAUGHLIN : **Confirmation Number: 1702**
Application No.: 09/964,143 : **Group Art Unit: 1617**
Filed: September 25, 2001 : **Examiner: Wang, Shengjun**
For: EMOLLIENT SKIN CONDITIONING :
CREAM AND METHOD :

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is an Appeal from the final rejection mailed April 1, 2008 and the Advisory Action mailed August 12, 2008, finally rejecting all pending claims. A Notice of Appeal was filed on September 2, 2008, the appeal brief being due on November 2, 2008. Accordingly, this brief is timely filed under 37 C.F.R. § 41.37(a). The fees required under 37 C.F.R. § 41.20(b)(2) are submitted concurrently herewith.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37, Manual of Patent Examining Procedure ("M.P.E.P.") § 1206, and M.P.E.P. § 2274:

- I. Real Party in Interest**
- II. Related Appeals and Interferences**
- III. Status of Claims**
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I. REAL PARTY IN INTEREST

The real party in interest for this appeal is the assignee of record, Crabtree & Evelyn, Ltd. with a principal place of business at 102 Peake Brook Road, P.O. Box 167, Woodstock, CT 06281-0167.

II. RELATED APPEALS AND INTERFERENCES

The Board of Patent Appeals and Interferences in Appeal 2006-3210 rendered a March 16, 2007 decision on this Application 09/964,143 affirming the rejection of claims 3, 6, 7, 33, and 39-43. (Before ADAMS, GRIMES AND LINCK, Administrative Patent Judges, LINCK, Administrative Patent Judge.). The rejection of independent claim 40 under 35 U.S.C. § 103(a) in view of Kellner and Barker, and dependent claim 39 in view of Kellner, Barker and McAtee was affirmed. Lacking arguments on separate patentability, the Board affirmed the rejection of claims 3, 6, 7, 33, and 41-43.

There are no other pending appeals or interferences known to Applicant or to the Applicant's undersigned attorney which will be related to, directly affect or be directly affected by, or have a bearing on, a decision by the Board of Patent Appeals and Interferences in the presently pending Appeal.

III. STATUS OF CLAIMS

A. TOTAL NUMBER OF CLAIMS IN THE REEXAMINATION APPLICATION

There are a total of 16 claims pending in this application.

B. CURRENT STATUS OF CLAIMS

Claims cancelled 1-36 and 38-43.

Claims pending: 37 and 44-59.

Claim withdrawn from consideration but not cancelled: 37

Claims allowed: none

Claims rejected: 44-59.

C. CLAIMS ON APPEAL

The claims on appeal are claims: 44-59.

IV. STATUS OF AMENDMENTS

The Applicant filed an Amendment in response to the Final Office Action on July 1, 2008, which amended claim 45 and a Supplemental Declaration Under 37 C.F.R. § 1.132 by Lauren Trahan. The Advisory Action of August 12, 2008 entered the Amendment and Supplemental Declaration. Accordingly, the claims enclosed herein as Appendix A incorporate the amendment.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The claimed invention is directed to a cosmetic exfoliating composition which is stable and which does not leave a greasy or tacky after-feel when the composition is applied to and rinsed from skin with water and the skin is dried. Specification at p. 4:3-17. The composition is effective to condition the skin of a human being, which produces an exfoliating composition and cleanses the skin. Specification at 4:12-13. The skin effects are superior to the prior art because of the use of water-insoluble monocarboxylic acid salt in combination with emollient fatty material and a controlled proportion of surfactant. Specification at pp. 17:20 –18:36.

Claims under consideration

There is one independent claim under consideration in the reexamination application on appeal, claim 44.

Claim 44

Claim 44 reads as follows:

“44. A cosmetic exfoliating composition which is stable and which does not leave a greasy or tacky after-feel when said composition is applied to and rinsed from skin with water and the skin is dried, said composition comprising:

(A) an emollient material consisting essentially of :

(i) 35% to 60% by weight of the composition at least one emollient oil selected from the group consisting of animal oils, vegetable or plant derived oils, hydrocarbon oils, silicone oils and mixtures thereof [specification at p. 7:7-19 and 8:1-7]; and

(ii) 0% to 5 % by weight of the composition of at least one emollient hydrophobic compound selected from the group consisting of C12-C18 fatty acyl or alkyl group esters, C12-C18 fatty acids, C12-C18 fatty alcohols, C12-C18 fatty esters, an emollient extract, and an emollient wax [specification at p. 7:20-32];

(B) a calcium or magnesium salt of a C14-C18 monocarboxylic acid wherein *the weight ratio of emollient material to said monocarboxylic acid salt is in the range of 4:1 to 2.5:1, said proportion being adequate to produce a composition in the form of a stable, extrudable paste or cream;*

(C) 10% to 45% by weight of a non-irritating, mildly abrasive, skin compatible, particulate material that is effective to cleanse and lubricate the skin without abrading the skin, said particulate material including a mixture of 8% to 20% by weight of a starch material selected from the group consisting of starches and enzyme or acid hydrolyzed starches with another particulate material selected from the group consisting of sodium chloride, pumice, talc and vegetable flour;

(D) *0.4% to 8.0% by weight of a surface active agent* to form a stable composition and to leave a thin film of emollient material on the skin, which is effective to soften, smooth and moisturize the treated skin without a greasy or tacky after-feel when the composition is removed from the skin by rinsing it with water and the skin is dried; and

(E) 0%-4% by weight of water [Specification at p. 13:6-8 and 22:4].

Italics emphasis added. As emphasized, the claimed composition has the following critical elements:

- The emollient/salt ratio in the composition is required to be in the range of 4:1 to 2.5:1. Specification at p. 4:22-23. These proportions claimed provide a stable, extrudable paste or cream. Specification at p. 4: 23-24.
- The composition includes 10% to 45% by weight of a non-irritating, mildly abrasive, skin compatible, particulate material to effectively cleanse and lubricate the skin without abrading the skin. Specification at p. 12:26-28. The particulate material in the composition must include both an abrasive material as well as 8% to 20% by weight of a starch material. Specification at p. 12:22-30.
- The claimed range of 0.4% to 8.0% by weight of the amount of surface active agent is essential to the composition to provide the thin film of emollient that effectively softens, smoothes and moisturizes the skin without leaving a greasy or tacky after-feel when the composition is removed from the skin with water and then dried. Specification at p. 10:4-16. It must be controlled within the claimed range so that it is effective to rinse the bulk of the composition from the skin after the composition is applied. *Id.* If too little surfactant is present, too much fatty matter remains on the skin to leave a greasy and unacceptable after-feel. Specification at p. 10:20-21. If too much surfactant is present, substantially all of the composition is removed from the skin when rinsed with water and a thin film of emollient is not left on the skin. Specification at p. 10:21-23. The amount of surface active agent is critical to stabilizing the composition and to leaving a thin film on the skin, but not leaving a greasy or tacky after feel after rinsing with water. Specification at p. 10:4-27.
- The composition must contain a calcium or magnesium salt of a C₁₄-C₁₈ monocarboxylic acid. Specification at p. 4:17-18.

Dependent claims 45 and 58-59, each of which depend directly from claim 44, further recite additional claim limitations as follows:

Claim 45. The composition according to Claim 44, wherein the amount of water in the composition is 0%-1% by weight. Specification at p. 13:6-8.

Claim 58. The composition according to Claim 44, wherein the emollient oil is a macadamia seed oil and rice bran oil; the fatty acyl or alkyl group esters are isopropyl myristate, sucrose distearate, and caprylic/capric triglyceride; the fatty alcohol is cetyl alcohol; the fatty acid is stearic acid; the emollient extract is Shea butter; the emollient is emulsifying wax; the surface active agent is sodium cocoyl N-methyl taurate; the water-insoluble monocarboxylic acid salt is calcium stearate; the particulate material is pumice; and the composition contains 0%-1% by weight water. Specification at p. 7:11; p. 13:6-8; 16:1-31; and p. 19:1-10.

Claim 59. The composition according to Claim 44, wherein the emollient oil is a macadamia seed oil; the fatty acyl or alkyl group esters are isopropyl myristate, sucrose distearate, and caprylic/capric triglyceride; the fatty alcohol is cetyl alcohol; the fatty acid is stearic acid; the emollient extract is Shea butter; the emollient is emulsifying wax; the surface active agents are sodium cocoyl N-methyl taurate and potassium stearate; the water-insoluble monocarboxylic acid salt is calcium stearate; the particulate material is a mixture of sodium chloride and oat kernel flour; and the composition contains 0%-1% by weight water. Specification at p. 13:6-8; 16:1-31; and p. 19:1-10.

The patent specification provides a comparison of the present claimed invention, set forth in Example 1, below, to the favorite brand of twenty (20) panelists who used their own favorite brand of skin conditioning within the preceding 24 hour period. Specification at pp. 17:1-18:36.

EXAMPLE 1 (HAND BUFFING CREAM)

A preferred cosmetic hand scrub or buffing composition has the following formula:

<u>Ingredient</u>	<u>% by weight</u>
Macadamia Temifolia Seed (nut) oil	35.6
Stearic acid	0.6
Shea Butter (Butyrospermum Parkii)	0.7
Caprylic/capric triglyceride	0.5
Isopropyl myristate	1.0
Cyclomethicone	0.4
Cetyl alcohol	0.2
Polawax (Emulsifying Wax) N.F.	1.0
Sucrose distearate	0.2
Behentrimonium methosulfate/cetearyl alcohol (75/25%)	0.5
Sodium cocoyl N-methyl taurate	0.7
Potassium stearate	0.1
Sodium chloride ¹	25.0
Calcium stearate	15.0
Maltodextrin starch	15.0
Avena Sativa (Oat) Kernel Flour ²	1.0
Preservative mixture of phenoxy ethanol and methyl, ethyl, propyl, butyl and isobutyl parabens	1.0
Sea kelp extract in SD 40 alcohol ³	0.1
Fragrance	q.s.
Total	100.0

¹ Sodium chloride is purchased from U.S. Salt under the trade name Superior TX-10 Salt and the particle size analysis by weight (U.S. Sieve Series) follows: -20mesh and + 30 mesh = 4%; -30 mesh and + 40 mesh = 44%; -40 mesh and +60 mesh = 49%; -60 mesh and +100 mesh = 3%.

² Oat flour is purchased from Beacon CMP Corporation under the tradename Tech-O#11-070 with a particle size of 45 microns.

³ Sea kelp extract is purchased from Pure World Botanicals, Inc. under the trade Seaweed Combination Blend MB 1391 and consists of equal proportions of Fucus Vesiculosus (Bladderwrack) Extract, Mycocystis Pyri Ferra (Pacific Sea Kelp) Extract and Algae (Red Algae) Extract in SDA 40A Alcohol.

Specification at p 16:1-25. Using a scale of **1** - not soft; **2** - Somewhat soft; **3** - Soft, **4** - Very soft; and **5** - Extremely soft; each panelist compared her own favorite brand of skin conditioner to the product set forth in Example 1 according to the test protocol. Specification at pp. 17:20-18:8. As set forth below, the results were truly surprising and document the superior skin conditioning properties of the present invention and set forth on the TABLE 1. Specification at 18:9-33.

TABLE I

<u>Panelist</u>	<u>Age Group</u>	<u>Favorite Brand</u>	<u>Rating</u>
		<u>Brand</u>	<u>Ex. 1</u>
DM	30 - 40	Avon Moisture Therapy®	4
DK	40 - 50	Nivea®	3
TW	30 - 40	Neutrogena®	1
HC	20 - 30	Eucerin®	3
MR	30 - 40	Oil of Olay®	2
BS	20 - 30	Oil of Olay®	2
KB	20 - 30	Jergens®	4
EB	30 - 40	Suave Skin Therapy®	4
AC	40 - 50	Neutrogena®	3
KC	40 - 50	Keri®	3
MN	30 - 40	Lubriderm®	3
CL	20 - 30	Vaseline Intensive Care®	3
JL	30 - 40	St. Ives®	3
BS	30 - 40	Aveno®	3
LR	40 - 50	L'Oreal®	1
JN	30 - 40	Vaseline Intensive Care Advanced®	3
AC	20 - 30	Vaseline Intensive Care®	3
JM	50 - 60+	Nutrogena®	2
JB	20 - 30	Back to Basics®	3
BK	50 - 60+	Vaseline Intensive Care®	3

As illustrated, the product of this invention scored seventeen (17) "Extremely Soft" panelist ratings, and three "Very Soft" panelist ratings. In comparison, the panelists' favorite brands failed to score any "Extremely Soft" ratings and, at best, scored only three "Very Soft" ratings with other ratings below the Very Soft rating.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection on Appeal are:

(1) Whether claims 44 and 46-57 are patentable under 35 U.S.C. § 103(a) over Zabotto et al., U.S. Patent No. 4,673,526 (“Zabotto”) and Barker et al., U.S. Patent No. 5,360,824 (“Barker”) in view of Kellner, U.S. Patent No. 6,042,815 (“Kellner”), McAtee et al., U.S. Patent No. 6,153,208 (“McAtee”), Stewart et al. ,U.S. Patent No. 6,197,281 (“Stewart”), Geria, U.S. Patent No. 4,992,476 (“Geria”), Daniel et al., U.S. Patent No. 5,891,449 (“Daniel”); and Gagnebien et al., U.S. Patent No. 5,888,951 (“Gagnebian”);

(3) Whether claim 45 is patentable under 35 U.S.C. § 103(a) over Zabotto et al., U.S. Patent No. 4,673,526 (“Zabotto”) and Barker et al., U.S. Patent No. 5,360,824 (“Barker”) in view of Kellner, U.S. Patent No. 6,042,815 (“Kellner”), McAtee et al., U.S. Patent No. 6,153,208 (“McAtee”), Stewart et al. ,U.S. Patent No. 6,197,281 (“Stewart”), Geria, U.S. Patent No. 4,992,476 (“Geria”), Daniel et al., U.S. Patent No. 5,891,449 (“Daniel”); and Gagnebien et al., U.S. Patent No. 5,888,951 (“Gagnebian”).

(2) Whether claim 58 is patentable under 35 U.S.C. § 103(a) over Zabotto et al., U.S. Patent No. 4,673,526 (“Zabotto”) and Barker et al., U.S. Patent No. 5,360,824 (“Barker”) in view of Kellner, U.S. Patent No. 6,042,815 (“Kellner”), McAtee et al., U.S. Patent No. 6,153,208 (“McAtee”), Stewart et al. ,U.S. Patent No. 6,197,281 (“Stewart”), Geria, U.S. Patent No. 4,992,476 (“Geria”), Daniel et al., U.S. Patent No. 5,891,449 (“Daniel”); and Gagnebien et al., U.S. Patent No. 5,888,951 (“Gagnebian”); and

(3) Whether claim 59 is patentable under 35 U.S.C. § 103(a) over Zabotto et al., U.S. Patent No. 4,673,526 (“Zabotto”) and Barker et al., U.S. Patent No. 5,360,824 (“Barker”) in view of Kellner, U.S. Patent No. 6,042,815 (“Kellner”), McAtee et al., U.S. Patent No. 6,153,208 (“McAtee”), Stewart et al. ,U.S. Patent No. 6,197,281 (“Stewart”), Geria, U.S. Patent No. 4,992,476 (“Geria”), Daniel et al., U.S. Patent No. 5,891,449 (“Daniel”); and Gagnebien et al., U.S. Patent No. 5,888,951 (“Gagnebian”).

VII. ARGUMENT

A. The Examiner failed to meet the burden of explaining why the evidence submitted in the Response to the Final Office Action was nonpersuasive

The Examiner maintained during the interview on May 27, 2008 that the Declaration was insufficient because it was not commensurate in scope with the claimed subject matter.

Examiner Interview Summary Record, June 3, 2008. An Advisory Action was issued on August 12, 2008. The Advisory Action stated that the evidence Applicant submitted on July 1, 2008 was entered and considered. However, the examiner provided no specific explanation why the evidence entered into record was non-persuasive. Instead, the Advisory Action reads as follows:

“The request for reconsideration has been considered but does NOT place the application in condition for allowance because:

The declaration under 37 C.F.R. 1.132 have been fully considered, but are found unprobative. Particularly, there is no *prima facie* case of a nexus between the commercial success and the claimed invention, Applicants assert a commercial success residing in the claimed invention [sic]. Note, an applicant who is asserting commercial success to support its contention of nonobviousness bears the burden of proof of establishing a nexus between the claimed invention and the evidence of commercial success. . . . See. MPEP 716.03.”

Advisory Action at pp. 2-3. The Examiner provided no reason why the Supplemental Declaration by Mrs. Trahan was insufficient to overcome the obviousness rejection other than stating that there is no nexus between the commercial success and the claimed invention. Mrs. Trahan clearly states that: “The hand recovery products sold incorporate the following ingredients, which are within the claimed subject matter of the above referenced patent applications.” Supplemental Trahan Declaration at p. 1. Nonetheless, the Examiner gave no specific explanation why the appropriate nexus was not established with the claimed invention.

The Manual of Patenting Examining Procedure (“MPEP”) states:

All entered affidavits, declarations, and other evidence traversing rejections are acknowledged and commented upon by the examiner in the next succeeding action. The extent of the commentary depend on the action taken by the examiner....*Where the evidence is insufficient to overcome the rejection, the examiner must specifically explain why the evidence is insufficient.* General statements such as “the declaration lacks technical validity” or “the evidence is not commensurate with the scope of the claims” without an explanation supporting such findings are insufficient.

MPEP § 716.01 (emphasis provided).

Notwithstanding the overwhelming new evidence submitted in Applicant's response to Final Office Action, the Advisory Action was completely devoid of specific explanations why the evidence lacked a nexus to the claimed invention and was deemed insufficient. The Examiner has clearly failed to meet the burden of specifically explaining to the Applicant why the evidence submitted and entered into record was insufficient to overcome the rejections. This constitutes reversible error.

As set forth below in detail, the overwhelming evidence Applicant submitted during the reexamination proceeding overcomes all the rejections raised by the Examiner. Accordingly, Applicant requests that the rejections be reversed based on the Board's review of the record. Alternatively, at the very least, Applicant requests that the case be remanded back to the Examiner to fully consider the evidence.

B. Claims 44 and 46-57 of the subject patent are patentable under 35 U.S.C. § 103 over Zabotto and Barker in view of Kellner, McAtee, Stewart, Geria, Daniel, and Gagnebien

The obviousness rejection under 35 U.S.C. § 103 is a combination of eight different references.

“Claims 44-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zabotto[e] et al. (US 4,673,526), and Barker et al. (US 5,360,824, of record) in view of Kellner (US 6,042,815, of record, McAtee et al., (US 6,153,208), Stewart et al. (US 6,197,281), Geria, (US 4,992,476), Daniel et al. (US 5,891,449); and Gagnebien et al. (US 5,888,951).”

Final Office Action of April 4, 2008. The examiner has failed to present a *prima facie* case of obviousness because the combined teachings of the prior art relied upon by the examiner would not have led a person of ordinary skill in the art to select, add, delete and mix the various ingredients (or claim elements) disclosed in the prior art in the specific percentages to arrive at the claimed composition such that a person skilled in the art would expect a soft, smooth and moisturized skin without a greasy or tacky after feel after rinsing with water to be provided.

It is the subject matter as a whole that must be considered and the results obtained from the inventive composition, and not the fact that individual constituents of the composition can be

identified in the prior art. The reversible error in examiner's rejection is that he has selected key claimed constituents from the prior art, but ignored the fact that the prior art lacks other constituents that would teach one of skill in the art away from the invention.

"Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1734 (2007), underline emphasis added. It is the subject matter as a whole, not the finding of individual limitations in the prior art without an apparent reason to combine the individual limitations into the invention as a whole that must be considered when reaching a determination of obviousness. *KSR* reaffirms the analytical framework set out in *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966), which mandates that an objective obviousness analysis includes: (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims at issue; (3) resolving the level of ordinary skill in the pertinent art. *KSR*, 127 S. Ct. at 1734. Secondary considerations such as commercial success, long felt but unresolved needs, or failure of others "might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." *Id.* (quoting *Graham*, 383 U.S. at 17-18) ("While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.").

As evidence of non-obviousness, Applicant submitted a 37 C.F.R. §1.132 Declaration of Lauren Trahan, Crabtree & Evelyn's Formulation Chemist, addressing secondary considerations on non-obviousness. A Supplemental Declaration of Mrs. Trahan was also submitted addressing the commercial success of the claimed invention. This submission provides compelling evidence of synergy, commercial success and long felt need of the scope of the claims of the subject patent. As discussed below on pages 23-26 in more detail, such evidence weighs strongly against the finding of obviousness.

Under these guiding principles, the claims of the subject patent are not obvious in light of the primary references of Zabotto and Barker in view of Kellner, McAtee, Stewart, Geria, Daniel; and Gagnebien.

1. The Primary References of Zabotto and Barker Are Deficient in Meeting the Limitations of the Claimed Invention

The Examiner acknowledges the many deficiencies in Zabotto and Barker, the primary references applied by the Examiner in meeting the claimed limitations of independent claims 44 - 59 stating that:

"The primary references [Zabotto and Barker] do not teach expressly the particular percentage of each and every ingredient herein claimed, or the employment of particular ingredients, such as particular abrasive agents, particular oil, calcium stearate, or the employment of sodium chloride, pumice, kernel starch as a particulate ingredients, and sodium cocoyl N-methyl taurate as the surfactant."

Final Office Action at p. 3, underline emphasis added. Even when one of skill in this art combines Zabotto and Barker, the particular percentages of each and every ingredient is not disclosed, much less the employment of particular ingredients. The Examiner's use of "such as" is exemplary only of the deficiencies in the combined references. Importantly, the Examiner omitted the fact that neither Zabotto nor Barker failed to identify a calcium or magnesium C₁₄-C₁₈ monocarboxylic salt within the claimed emollient/salt ratio range.

To make up for these deficiencies in Zabotto and Barker, the Examiner then relies on no less than six other references, none of which fully make up for the deficiencies of the particular percentage of the ingredients and employment of particular ingredients of Zabotto and Barker. The Examiner's back-fitting of the deficient claim limitations by selecting, adding, subtraction and mixing of claim elements from eight prior art references can only be attributed to the Examiner's impermissible hindsight use of independent claim 44 as a road map.

This is clear error as the examiner has failed in his attempt to make a *prima facie* case of obviousness as no "apparent reason"⁴ is provided why one of skill in the art would select, add, subtract or mix the claim limitations from eight references. *KSR* at 1741. There is no "apparent reason" in the eight prior art references to combine the references in the manner that the Examiner alleges to disclose or teach claims 44-59. One of skill in the art would find multiple

⁴ The Supreme Court's *KSR* decision requires an "apparent reason" why one of skill in the art would render the invention obvious. *KSR* at 1741.

and impassible detours to achieve the present invention if only one followed the teachings in the eight prior art references.

a. *Zabotto Fails To Solve The Deficiency*

According to the Examiner, Zabotto teaches a cleansing composition containing 50-95% oily phase, 1-30% of an emulsifying agent and 1-10% of particulate abrasives. Final Office Action at p. 2. Zabotto has the following deficiencies in meeting the recited claim limitations:

- The particulate abrasives of Zabotto are described as "hydrosoluble," but are not disclosed to be mildly abrasive, but non-irritating – a limitation required by base claim 44.
- There is no teaching in the reference of mixing a starch with the particulate abrasives, also as required by base claim 44.
- There is also no teaching of adding a calcium or magnesium C₁₄-C₁₈ monocarboxylic salt within the claimed emollient/salt ratio range as recited in claim 44 to provide a stable, extrudable paste or cream.
- There is no teaching or suggestion of the claimed range for the emulsifying agent so as to stabilize the composition and leave a thin film of emollient on the skin, without leaving a greasy or tacky after feel after rinsing with water also as required by base claim 44.
- Zabotto states that: “The compositions of the present invention do not dry, thus allowing a prolonged massage, and remain thick or oily as long as water is not added. The lubricating effect of the compositions also makes the massage much gentler and more comfortable than with the presently known compositions.” Col. 6:6-11.

b. *Barker Fails To Solve The Deficiency*

Barker also fails to meet numerous claim limitations and has similar deficiencies. Barker's composition is a cream composed of a 50-50 mixture of petroleum jelly and corn oil along with sodium chloride particles. Barker requires that the particulate be water soluble and absorbed by the skin. See col. 2, lines 52-58. Barker is deficient in meeting the claim limitations because:

- Barker is unstable, contrary to the claimed limitation that the composition be “stable.” In fact, Barker illustrates the problem in the prior art exfoliating material. Specifically, in Example 16, specification at p. 23, the composition of Example 1 of U.S. Patent No. 5,360,824 to Barker was reproduced: 20% of sodium particles, 40% corn oil and 40 % VASELINE petroleum jelly. What was found was that the composition separates with the sodium chloride precipitating in less than one hour.

- There is no disclosure or suggestion of composition containing a surface active agent;
- There is no disclosure or suggestion of a calcium or magnesium C₁₄-C₁₈ monocarboxylic salt in the claimed emollient to salt ratio range; and
- There is no disclosure or suggestion a mixture of starch and other particulates as set forth in base claim 44.

To one of skill in the art, the secondary references to Kellner, McAtee, Stewart, Geria, Daniel, and Gagnebien fail to meet the deficiencies of the primary references of Zabotto and Barker

In the Office Action, the examiner fails in his attempt to make a *prima facie* case of obviousness by using the secondary references of Kellner, McAtee, Stewart, Geria, Daniel, and Gagnebien to meet the deficiencies of Zabotto and Barker. The secondary references do not cure the deficiencies in the primary references as each has indicia in their disclosure that would repel one of skill in the art from selectively taking one composition or range of compositions to meet the claimed invention.

c. *Kellner Fails To Solve The Deficiency*

According to the Examiner:

“Kellner teaches water and oil emulsion solid cosmetic compositions. The composition may be up to 30 per cent of emollient oil, both natural and synthetic oil may be employed (see, particularly, col. 9, line 29 to col. 11, line 62. Kellner further discloses that addition emollient materials, such as fatty alcohol, wax, etc., as oil phase gelling agent may be employed up to 30 % (see, particularly, col. 2, lines 66-67; col. 7, line 45 to col. 9, line 26).”

Underline emphasis added. Final Office Action at p. 3. The Examiner continued to describe Kellner as follows:

“Kellner further teaches that up to 20% of primary gelling agent may be used, wherein the preferred primary gelling agent are salt of fatty acid, particularly calcium stearate (see col. 2, lines 24-65). Surfactants up to 20% are desirable in the composition. Surfactants, including cationic, anionic, nonionic and zwitterionic surfactants are suitable (see, col. 16, line 9 to col. 19, line 34). The composition may comprising up to 50% of particular matter, the particulate may be organic or inorganic, such as corn starch, mica, etc. (see col. 19, lines 37-61).”

Final Office Action at p. 3.

Zabotto and Barker are oil based anhydrous cleansing compositions. The rejection relies on Kellner et al. in combination with either Zabotto or Barker as teaching solid, water and oil emulsion cosmetic composition. Final Office Action at pp. 2-3. However, Kellner is not a stable, extrudable paste or cream cleansing composition as required by base claim 44. It has a consistency such that it can be molded in the form of a stick (col. 2:7-11). Further, Kellner’s composition contains a significant amount of water, 5-95% by weight and requires both primary and secondary gelling agents (col. 1:56 to col. 2:3). The percentage of water in Kellner’s composition is higher than set forth in the claimed composition of 0-4.0%. Also, the amount of emollient oil in Kellner’s composition of 0.1-30% is less than the minimum 35% required by base claim 44. Col. 1:65; col. 9:29.

Moreover, a person skilled in the art would not have looked to an aqueous composition to modify an anhydrous composition of Zabotto. In addition, while the reference lists calcium stearate can be a component of the composition, the calcium stearate is disclosed as being a gelling agent for water-oil emulsion composition, and not as a surfactant. There would be no reason from the combined teachings of Kellner, Zabotto and Barker to modify either Zabotto or Barker to add a gelling agent to the anhydrous compositions. Further, while Kellner discloses mixtures of starch and other particulates, the reference does not teach or suggest a starch/particulate mixture where 8% to 20% by weight of the 10% to 45% by weight of the particulate material is a starch material selected from the group consisting of starches and enzyme or acid hydrolyzed starches as required by base claim 44.

d. McAtee Fails To Solve The Deficiency

The Examiner states that: “McAttee disclosed that sodium cocoyl methyl is similarly useful in other anionic surfactant in cleaning composition.” Final Office Action at pp. 2-3

McAtee is not directed to a cleaning composition in the form of a cream or lotion. It is directed to a dry, disposable multilayered article impregnated with a dry cleaning composition to which water must be added in order to function. In addition, McAtee seeks to solve the problem of lather suppression caused by the addition of ingredients such as surfactants. See col. 1:68 to col. 2:15. Specifically to solve this problem, McAtee uses a combination “lathering surfactant” and conditioning component in his cleansing composition. See col. 4:61-66. Even though McAtee’s composition could contain less than 5% by weight of water (col. 7:63 to col. 8:6), its cleansing properties require the addition of water to the impregnated composition in the multilayered article. See col. 7:7-15.

Also, the multilayered article itself is the exfoliate, and not a mixture of starch and particulate material as required by base claim 44. See col. 7:15-22. McAtee also does not disclose or suggest the addition of calcium or magnesium C₁₄-C₁₈ monocarboxylic salt to the composition as required by independent claim 44. While McAtee broadly discloses a salt of cocoyl methyl taurate as a lathering surfactant, there is no disclosure of the amount of surfactant in the composition impregnated into the multilayered substrate. Claim 2 of the patent discloses the amount to be 0.5% to about 12.5% by weight of the water insoluble substrate, not of the impregnated composition. The disclosure of McAtee is at best a “shotgun” disclosure of many ingredients. None of the examples in the patent are directed to compositions containing a surfactant within the scope of base claim 44.

e. Stewart Fails To Solve The Deficiency

The Examiner states that: “Stewart et al. teaches that polyvalent soaps, such as calcium stearate are well known to be useful as a thickener fro [for] making oil base gel. See, particularly, col. 9:24-29.” Final Office Action at p. 3.

Stewart teaches away from the claimed subject matter. Stewart is directed to a sunscreen composition that is waterproof, *i.e.*, the composition is not intended to be rinsed off with water

after it is applied to remove the composition from the skin. See col. 3:50-53. Accordingly, a person of ordinary skill in the art would not look to a sunscreen composition which is waterproof to modify a cleaning composition of Zabotto and/or Barker which can be rinsed away with water. In addition, Stewart does not disclose or suggest (i) that 8% to 20% by weight of the 10% to 45% by weight of the particulate material is a starch material selected from the group consisting of starches and enzyme or acid hydrolyzed starches or (ii) the addition of calcium or magnesium C₁₄-C₁₈ monocarboxylic salt to the composition as required by base claim 44.

f. *Geria Fails To Solve The Deficiency*

The Examiner states that: “Geria et al. teaches that pumice is known to be useful as abrasive particles in cosmetic composition. See, particularly, col. 7, lines 25-40.” Final Office Action at p. 3.

Geria discloses a water and oil skin cleansing composition containing 15% to 65% water, with amounts greater than 20% preferred. The amount of water in this composition far exceeds the 0% to 4% set forth in Applicant’s base claim 44. The amount of the abrasive is from about 2%-10%. Geria makes no mention of any percentage of a starch material to the abrasive, and particularly the 8% to 20% starch material required in the claims.

Like Kellner, Geria requires an aqueous thickening or gelling agent. Because a gelling agent is required, one of skill in the art would not look to an aqueous composition requiring a gelling agent to modify an anhydrous composition of Zabotto. While Geria discloses pumice as a particulate material, pumice could not be substituted in Barker because Barker requires that the particulate be water soluble and absorbed by the skin. See col. 2:52-58 of Barker. Geria’s composition contains 5% to 9% of a surfactant to leave an oil film on the skin that is a “non-oily film of oil.” See col. 3:55 to col. 4:15.

However, there is no disclosure that such levels of surfactant would be expected to have the same effect in compositions having less than 15% water content. In addition, Geria does not disclose the inclusion of (i) a calcium or magnesium C₁₄-C₁₈ monocarboxylic salt to the composition or (ii) a starch/particulate mixture where 8% to 20% by weight of the 10% to 45%

by weight of the particulate material is a starch material selected from the group consisting of starches and enzyme or acid hydrolyzed starches as required by base claim 44.

g. *Daniel Fails To Solve The Deficiency*

The Examiner states that “Daniel et al. teaches that kernel flour is known to be useful as an abrasive agent in cleaning composition.” Final Office Action at p. 4.

Daniel does not disclose an emollient composition; it is a cleaning agent for removing strongly adhering dirt. Therefore, a person skilled in the art would not look to Daniel to modify an emollient composition such as disclosed by Zabotto and/or Barker. In addition, the particulate material disclosed in Daniel are very fine particles, much finer than 100-800 μ particles disclosed in Barker and the 50-1000 μ particles disclosed in Zabotto. Further, the reference does not disclose or suggest a composition containing calcium or magnesium C₁₄-C₁₈ monocarboxylic salt to the composition and 0.4% to 8.0% by weight of a surface active agent to form a stable composition and to leave a thin film of emollient material on the skin as required by base claim 44.

h. *Gagnebien Fails To Solve The Deficiency*

The Examiner states that: “Gagnebien et al. teaches that macadamia oil is known to be used in cleaning composition. See, particularly, col. 4. lines 35-40.” Final Office Action at p. 4.

Gagnebien discloses a “FOAMING COMPOSITION FOR CLEANING THE SKIN” that contains an oil component such as macadamia oil and a surfactant. However, the surfactant is a foaming surfactant. Further, the reference fails to disclose a calcium or magnesium salt of a carboxylic acid or an exfoliate particulate material selected from the group consisting of sodium chloride, pumice, talc and vegetable flour as required by base claim 44. The reference also does not disclose the amount of exfoliant to contain 8% to 20% by weight of a starch material in addition to the particulate material. While Gagnebien’s composition includes a surfactant, it is a foaming surfactant.

The claimed product uses a surface active agent that forms a stable composition and leaves a thin film of emollient material on the skin. A foaming surface active agent at the concentration described by Gagnebien would not be expected to leave a non-greasy or non-tacky

after feel, when the composition is applied to and rinsed from the skin with water and the skin is dried.

C. Claim 45 of the subject application is patentable under 35 U.S.C. § 103 over Zabotto and Barker in view of Kellner, McAtee, Stewart, Geria, Daniel, and Gagnebien

Claim 45 is a dependent claim that depend directly on independent claim 44. Further, in addition to the arguments in Section B, above, that are hereby incorporated by reference as to Claim 45, the limitations of claim 45 further distinguish the claim invention from the prior art.

“45. The composition according to Claim 44, wherein the amount of water in the composition is 0%-1% by weight.”

The prior art applied by the examiner fails not only for the above reasons in Section B, but also for the following reason. By way of illustration, Kellner requires a significant amount of water - 5%-95% by weight - whereas claim 45 has the limitation of “0%-1% by weight water” that is far below the range of Kellner. Further, Geria contains 15% to 65% water, which is far above the 0%-1% by weight water in claim 45.

For the above reasons, the examiner’s rationale in applying all eight prior art references to render the invention of claim 45 obvious fails.

D. CLAIM 58 OF THE SUBJECT APPLICATION IS PATENTABLE UNDER 35 U.S.C. § 103 OVER ZABOTTO AND BARKER IN VIEW OF KELLNER, MCATEE, STEWART, GERIA, DANIEL, AND GAGNEBIEN

Claim 58 is a dependent claim depending directly on independent claim 44. Further, in addition to the arguments in Section B, above, that are hereby incorporated by reference as to Claim 58, the limitations of claim 58 further distinguish the claim invention from the prior art.

“58. The composition according to Claim 44, wherein the emollient oil is a macadamia seed oil and rice bran oil; the fatty acyl or alkyl group esters are isopropyl myristate, sucrose distearate, and caprylic/capric triglyceride; the fatty alcohol is cetyl alcohol; the fatty acid is stearic acid; the emollient extract is Shea butter; the emollient is emulsifying wax; the surface active agent is sodium cocoyl N-methyl taurate; the water-insoluble monocarboxylic acid salt is calcium stearate; the particulate material is pumice; and the composition contains 0%-1% by weight water.”

The prior art applied by the examiner fails not only for the above reasons in Section B, but also for the following reasons. By way of illustration, Kellner requires a significant amount of water - 5%-95% by weight - whereas claim 58 has the limitation of "0%-1% by weight water" that is far below the range of Kellner. Geria fails to recite a particulate of pumice, as required by claim 58. In addition, the cited references do not suggest the combination of each of the specific components recited in claim 58.

For the above reasons, the examiner's rationale in applying all eight prior art references to render the invention of claim 58 obvious fails.

E. Claim 59 of the subject application is patentable under 35 U.S.C. § 103 over Zabotto and Barker in view of Kellner, McAtee, Stewart, Geria, Daniel, and Gagnebien

Claim 59 is a dependent claim that depends directly on independent claim 44. Further, in addition to the arguments in Section B, above, that are hereby incorporated by reference as to Claim 59, the limitations of claim 59 further distinguish the claim invention from the prior art.

"59. The composition according to Claim 44, wherein the emollient oil is a macadamia seed oil; the fatty acyl or alkyl group esters are isopropyl myristate, sucrose distearate, and caprylic/capric triglyceride; the fatty alcohol is cetyl alcohol; the fatty acid is stearic acid; the emollient extract is Shea butter; the emollient is emulsifying wax; the surface active agents are sodium cocoyl N-methyl taurate and potassium stearate; the water-insoluble monocarboxylic acid salt is calcium stearate; the particulate material is a mixture of sodium chloride and oat kernel flour; and the composition contains 0%-1% by weight water."

The prior art applied by the examiner fails not only for the above reasons in Section B, but also for the following reasons. By way of illustration, Kellner requires a significant amount of water - 5%-95% by weight - whereas claim 59 has the limitation of "0%-1% by weight water" that is far below the range of Kellner. Further, Geria contains 15% to 65% water, which is far above the 0%-1% by weight water in claim 59. Also, Geria fails to recite a particulate of sodium chloride and oat kernel flour as required by claim 59. In

addition, the cited references do not suggest the specific combination of components of claim 59.

For the above reasons, the examiner's rationale in applying all eight prior art references to render the invention of claim 59 obvious fails.

F. The objective indicia of nonobviousness, namely, commercial success, long-felt need, and failure of others weigh strongly against a finding of obviousness of claims 44, 46-57, 45, 58, and 59

Objective indicia of non-obviousness, namely, commercial success, long-felt need, failure of others, copying by others, licensing, and skepticism of experts, weigh strongly against a finding of obviousness of claims 44-46-57, 45, 58, and 59. See MPEP § 2141 (III) ("Objective evidence or secondary considerations such as unexpected results, commercial success, long-felt need, failure of others, copying by others, licensing, and skepticism of experts are relevant to the issue of obviousness and must be considered in every case in which they are present."); *see also Ortho-McNeil Pharm. v. Mylan Labs, Inc.*, 520 F.3d 1358, 1365 (Fed. Cir. 2008) ("[T]his evidence is not just a cumulative or confirmatory part of the obviousness calculus but constitutes independent evidence of nonobviousness"); *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538 (Fed. Cir. 1983)) ("[E]vidence of secondary considerations may often be the most probative and cogent evidence in the record.").

The synergy between the elements of the claimed composition that provides "...which is stable and which does not leave a greasy or tacky after-feel when said composition is applied to and rinsed from skin with water and the skin is dried" provides strong evidence of nonobviousness. MPEP § 2141.01(V) ("[I]n the case of a claim to a combination, applicants may submit evidence or argument to demonstrate that ... (B) the elements in combination do not merely perform the function that each element performs separately").

Here, the applicant has presented objective evidence of non-obviousness by the R. 1.132 declaration of Lauren Trahan to rebut the *prima facie* obviousness contentions of the Examiner's – comparative tests of products embodied by Barker's composition and the McAtee multilayered product. Further, the specification examples additionally provide evidence of superior results of

the claimed invention over other compositions, including the broad ranges for the emollient and surfactant in the claimed composition.

2. Compelling evidence of nonobviousness in Lauren Trahan's R. 1.132 Declaration weigh strongly against a finding of obviousness of claims 44 and 46-57

Notwithstanding the lack of a *prima facie* case, the examiner maintained the obviousness rejection even in view of the Trahan Rule 132 Declaration that established the inventive product "EP" was "significantly better" than the prior art products, *i.e.*, "NT" Example 1 from Barker; P&G Olay Total Age Defying Cleansing Cloths (McAtee); One Minute Manicure of Mykytyn Enterprises, a bench mark for this category. Declaration at p. 5, ¶ 14. The confidence level was 95 % confidence. Trahan Declaration at p. 5, ¶ 12-p. 6, ¶ 12. The testing conducted by Ms. Trahan presented results of a product evaluation using a test panel of thirty (30) women, who evaluated a product composition within the scope of the claims in the present application to Barker's composition and the McAtee multilayered product.⁵ Trahan Declaration at pp. 3, ¶ 6 – p. 7, ¶ 14. The formulation of the "EP" product was as follows:

⁵ A comparison to Zabotto could not be reproduced because the ingredients in Zabotto's composition are no longer commercially available and could not be obtained.

Ingredient	Weight Percent
Macadamia Ternifolia Seed Oil	35.06%
Stearic Acid	0.552%
Butyrospermum Parkii (Shea Butter)	0.72%
Caprylic/Capric Triglyceride	0.48%
Isopropyl Myristate	0.96%
Dow Corning ® 345 Fluid	0.36%
Cetyl Alcohol	0.24%
Emulsifying Wax N.F.	0.96%
Sucrose Distearate	0.24%
Incroquat Behenyl TMS	0.48%
Tauranol WSP	0.95%
Potassium Stearate	0.125%
USP Colloidal Oatmeal	0.99%
Calcium Stearate	18.80%
Maltodextrin	12.20%
Deionized Water	0.80%
Phenonip	1.00%
Bladderwrack Extract	0.033%
Algae Extract	0.033%
Pacific Sea Kelp Extract	0.033%
Fragrance	1.50%
Sodium Chloride	23.49%

Id. The Declaration establishes that Applicant's commercial product, however, is superior to Barker's composition – a primary reference – and McAtee's multilayered dry wipe product – a secondary reference.

The commercial hand recovery product covered by the claims of the present application has been a commercial success for Crabtree & Evelyn as evidenced by the Supplemental Declaration of Lauren Trahan, which is attached to this response. In the past four (4) years, almost three hundred and ninety thousand (390,000) hand recovery units have been sold. The sales represent at least 2% of the total sales of Crabtree & Evelyn products.

3. Compelling evidence of nonobviousness in Lauren Trahan's R. 1.132 Declaration weigh strongly against a finding of obviousness of claim 59

As indicated below, claim 59 substantially reflects the elements of product "EP" that was significantly superior over the prior art products described above in Section C. 1. The water weight percent of "0.80%" is bounded by the claim 59 limitation of water content (weight per cent from 0% to 1%). This evidence of "significantly superior" results the EP product over the closest prior art fully rebuts the examiner's assertion of obviousness.

Ingredient	Weight Percent	Claim 59
Macadamia Ternifolia Seed Oil	35.06%	Yes
Stearic Acid	0.552%	Yes
Butyrospermum Parkii (Shea Butter)	0.72%	Yes
Caprylic/Capric Triglyceride	0.48%	Yes
Isopropyl Myristate	0.96%	Yes
Dow Corning ® 345 Fluid	0.36%	Yes
Cetyl Alcohol	0.24%	Yes
Emulsifying Wax N.F.	0.96%	Yes
Sucrose Distearate	0.24%	Yes
Incroquat Behenyl TMS	0.48%	
Tauranol WSP	0.95%	Yes
Potassium Stearate	0.125%	Yes
USP Colloidal Oatmeal	0.99%	Yes
Calcium Stearate	18.80%	Yes
Maltodextrin	12.20%	
Deionized Water	0.80%	Yes
Phenonip	1.00%	
Bladderwrack Extract	0.033%	
Algae Extract	0.033%	
Pacific Sea Kelp Extract	0.033%	
Fragrance	1.50%	
Sodium Chloride	23.49%	Yes

4. Objective indicia of nonobviousness of claims 44-59 are presented in the specification

The Examiner indicated that notwithstanding the showing in the Trahan Declaration, the Examiner's position is that it is non commensurate in scope with the claimed subject matter. In

particular, the composition did not cover the broad ranges for the emollient and surfactant in the claimed composition. The Examiner's attention is directed to Examples 1, 7, 20-22 in the specification as further evidence of the scope of the amount of emollient (about 35% to 60%) and the amount of surfactant (0.7 to 8%) produce the conditioning effects set forth in base claim 44.

Example 1 in the specification is substantially the same composition as set forth in the Trahan Declaration. The amount of emollient is about 35% in both Example 1 and the Trahan Declaration and the amount of surfactant in Example 1 and the Trahan Declaration is 0.7% and 1%, respectively.

Example 7 describes a composition comprising 41% of an emollient and 4% of a surfactant. Specification at p. 20. The composition is described as being stable cream and "softens, smoothes and moisturizes the skin when it is applied thereto" These are properties set forth in base claim 44. Compare the properties of Example 7, specification at p. 20, to Exhibits L, M and N of the Trahan Declaration. Examples 20-22 describe compositions containing 45 to 55% emollient and an amount of surfactant ranging from 3.5% to 8%. The compositions are described as forming "substantially stable creams that are effective to soften, smooth, moisturize and cleanse the skin when used in the claimed manner." Specification at p. 24:1-23. Again, these are claimed properties. Also compare these properties to Exhibits L, M and N of the Trahan Declaration. Trahan Declaration at Exhibits L, M and N. Other examples in the specification that support the scope of the claims include Examples 17-19. Specification at p. 23:17-32.

* * * * *

The data from the Trahan Declaration and the Examples from the specification would have led a person of ordinary skill in the art to conclude that there is a reasonable expectation that the results shown in the Trahan Declaration would be expected for the entire range of the emollient and surfactant contained in the claimed composition set forth in independent claim 44, dependent claims 45, 58 and 59.

CONCLUSION

For the foregoing reasons, it is submitted that the claims 44, 46-59, 45, 58 and 59 are patentable over the teachings of the prior art relied upon by the Examiner. Accordingly, Applicant prays that the rejection of claims 44-59 should be reversed and allowance of the claims is courteously solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due under 37 C.F.R. § 1.17 and due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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VIII. CLAIMS APPENDIX

A copy of the claims involved in the present appeal is provided hereto as Appendix A.

APPENDIX A

Claims:

Claim 44. A cosmetic exfoliating composition which is stable and which does not leave a greasy or tacky after-feel when said composition is applied to and rinsed from skin with water and the skin is dried, said composition comprising:

(A) an emollient material consisting essentially of :

(i) 35% to 60% by weight of the composition at least one emollient oil selected from the group consisting of animal oils, vegetable or plant derived oils, hydrocarbon oils, silicone oils and mixtures thereof; and

(ii) 0% to 5 % by weight of the composition of at least one emollient hydrophobic compound selected from the group consisting of C12-C18 fatty acyl or alkyl group esters, C12-C18 fatty acids, C12-C18 fatty alcohols, C12-C18 fatty esters, an emollient extract, and an emollient wax;

(B) a calcium or magnesium salt of a C14-C18 monocarboxylic acid wherein the weight ratio of emollient material to said monocarboxylic acid salt is in the range of 4:1 to 2.5:1, said proportion being adequate to produce a composition in the form of a stable, extrudable paste or cream;

(C) 10% to 45% by weight of a non-irritating, mildly abrasive, skin compatible, particulate material that is effective to cleanse and lubricate the skin without abrading the skin, said particulate material including a mixture of 8% to 20% by weight of a starch material selected from the group consisting of starches and enzyme or acid hydrolyzed starches with another particulate material selected from the group consisting of sodium chloride, pumice, talc and vegetable flour;

(D) 0.4% to 8.0% by weight of a surface active agent to form a stable composition and to leave a thin film of emollient material on the skin, which is effective to soften, smooth and moisturize the treated skin without a greasy or tacky after-feel when the composition is removed from the skin by rinsing it with water and the skin is dried; and

(E) 0%-4% by weight of water.

Claim 45. The composition according to Claim 44, wherein the amount of water in the composition is 0%-1% by weight.

Claim 46. The composition according to Claims 44 or 45, wherein said C14 - C18 monocarboxylic acid salt is calcium stearate.

Claim 47. The composition according to Claims 44 or 45, wherein the surface active agent is an anionic surfactant.

Claim 48. The composition according to Claim 47, wherein said anionic surfactant is sodium cocoyl N-methyl taurate.

Claim 49. The composition according to Claims 44 and 45, wherein the particulate material is sodium chloride and the amount of surface active agent is 0.4%-3.0% by weight for hand buffing with said composition.

Claim 50. The composition according to Claims 44 and 45, wherein the particulate material is sodium chloride and the amount of surface active agent is 0.4%-2.0% by weight for hand buffing with said composition.

Claim 51. The composition according to Claims 44 and 45, wherein the particulate material is sodium chloride and the amount of surface active agent is 0.4%-1.3% by weight for hand buffing with said composition.

Claim 52. The composition according to Claims 44 and 45, wherein the particulate material is pumice and the amount of surface active agent is 2.0%-8.0% by weight for buffing heels, knees and elbows with said composition.

Claim 53. The composition according to Claims 44 and 45, wherein the particulate material is pumice and the amount of surface active agent is 3.0%-7.0% by weight for buffing heels, knees and elbows with said composition.

Claim 54. The composition according to Claims 44 and 45, wherein the particulate material is pumice and the amount of surface active agent is 3.0%-6.0% by weight for buffing heels, knees and elbows with said composition.

Claim 55. The composition according to Claims 44 and 45, wherein the particulate material is pumice and the amount of surface active agent is 2.0%-8.0% by weight for buffing face and body with said composition.

Claim 56. The composition according to Claims 44 and 45, wherein the particulate material is pumice and the amount of surface active agent is 2.0%-7.0% by weight for buffing face and body with said composition.

Claim 57. The composition according to Claims 44 and 45, wherein the particulate material is pumice and the amount of surface active agent is 2.0%-6.0% by weight for buffing face and body with said composition.

Claim 58. The composition according to Claim 44, wherein the emollient oil is a macadamia seed oil and rice bran oil; the fatty acyl or alkyl group esters are isopropyl myristate, sucrose distearate, and caprylic/capric triglyceride; the fatty alcohol is cetyl alcohol; the fatty acid is stearic acid; the emollient extract is Shea butter; the emollient is emulsifying wax; the surface active agent is sodium cocoyl N-methyl taurate; the water-insoluble monocarboxylic acid salt is calcium stearate; the particulate material is pumice; and the composition contains 0%-1% by weight water.

Claim 59. The composition according to Claim 44, wherein the emollient oil is a macadamia seed oil; the fatty acyl or alkyl group esters are isopropyl myristate, sucrose distearate, and caprylic/capric triglyceride; the fatty alcohol is cetyl alcohol; the fatty acid is stearic acid; the emollient extract is Shea butter; the emollient is emulsifying wax; the surface active agents are sodium cocoyl N-methyl taurate and potassium stearate; the water-insoluble monocarboxylic acid salt is calcium stearate; the particulate material is a mixture of sodium chloride and oat kernel flour; and the composition contains 0%-1% by weight water.

IX. EVIDENCE APPENDIX

Evidence items i listed below are attached hereto as Appendix B as evidence entered by the Examiner and relied upon by Applicants in the appeal. For the sake of convenience, evidence items i-iv are provided in duplicates.

Exhibit 1 included in the Response to Final Office Action filed on May 20, 2008, entered into record as shown in August 4, 2008 Advisory Action.

- i. Declaration under 37 C.F.R. § 1.132 by Lauren Trahan executed on December 28, 2007, including curriculum vitae (as Appendix I) and Exhibits A-P, submitted on December 31, 2007 and considered in the April 1, 2008 Final Office Action.
- ii. Supplemental Declaration under 37 C.F.R. § 1.132, Lauren Trahan executed on June 30, 2008.
- iii. Declaration under 37 C.F.R. § 1.132 by James Hugh McLaughlin, executed on December 17, 2003, and Attachments.
- iv. *Ex parte* James H. McLaughlin, Appeal 2006-3210 at pp. 2-3, March 16, 2007.

X. RELATED PROCEEDINGS APPENDIX

On March 16, 2007, the Board of Patent Appeals and Interferences, Administrative Patent Judges, rendered a decision in *Ex parte* James H. McLaughlin, Appeal 2006-3210 affirming the final rejection of all pending claims in the above-identified application, 09/964,143. Representative claim 40 reads as follows:

“40. A cosmetic exfoliating composition for use in cleansing and conditioning the skin of hands, face, heels/knees/elbows and/or the body of a human being in the form of a[n] extrudable paste or cream that comprises:

(A) 40% to 60% by weight of emollient material consisting of a major proportion of emollient oil selected from the group consisting of animal oils, vegetable or plant derived oils, hydrocarbon oils, silicone oils and mixtures thereof and a minor proportion of an emollient hydrophobic compound selected from the group consisting of C12-C18 fatty acids, C12-C18 fatty alcohols, C12-C18 fatty esters, Shea butter, lanolin or a lanolin derivative, lecithin and mixtures thereof;

(B) a water-soluble surface active agent selected from the group consisting of anionic, nonionic, amphoteric, zwitterionic, and cationic surfactants in a proportion selected in the range of 0.4% to 8.0% by weight, said proportion being effective to deposit a skin softening amount of emollient material on the treated skin with water and the skin is dried.

(C) a calcium or magnesium salt of a C14-C18 monocarboxylic acid wherein the weight ratio of emollient material to said monocarboxylic acid salt is in the range of 4:1 to 2.5:1, said proportion being adequate to produce a composition in the form of a stable, extrudable paste or cream;

(D) 10% to 45% by weight of a non-irritating, mildly abrasive, skin compatible, particulate material that is effective to cleanse and lubricate the skin without abrading the skin, said particulate material including a mixture of 8% to 20% by weight of a starch material selected from the group consisting of starches and enzyme or acid hydrolyzed starches with another particulate material selected from the group consisting of sodium chloride, pumice, talc and vegetable flour;

(E) 0%-4% by weight of water;
said composition being effective to cleanse, soften, smooth and moisturize the skin when the composition is applied and massaged into the skin, thereafter rinsed from the skin with tepid water and the skin is dried.”

Ex parte James H. McLaughlin, Appeal 2006-3210 at pp. 2-3, March 16, 2007. The Board affirmed the examiner’s rejection of claim 40 in view of Kellner and Barker. The Board also affirmed the rejection of claim 39 in view Kellner, Barker and McAtee.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Customer Number: 20277
 :
 James H. McLAUGHLIN : Confirmation Number: 1702
 :
 Application No.: 09/964,143 : Group Art Unit: 1617
 :
 Filed: September 25, 2001 : Examiner: Wang, Shengjun
 :
 For: EMOLlient SKIN CONDITIONING CREAM AND METHOD

SUPPLEMENTAL DECLARATION BY LAUREN TRAHAN
UNDER 37 C.F.R. § 1.132

I, LAUREN TRAHAN, declare and say as follows:

1. This declaration supplements my previous declaration dated December 28, 2007.
 2. I have access to business records of Crabtree & Evelyn sales records showing sales of hand recovery products from calendar years 2004 to 2007. The hand recovery products sold incorporate the following ingredients, which are within the scope of the claimed subject matter of the above-referenced patent application:

Ingredient	Weight Percent
Macadamia Ternifolia Seed Oil	35.06%
Stearic Acid	0.552%
Butyrospermum Parkii (Shea Butter)	0.72%
Caprylic/Capric Triglyceride	0.48%
Isopropyl Myristate	0.96%
Dow Corning ® 345 Fluid	0.36%
Cetyl Alcohol	0.24%
Emulsifying Wax N.F.	0.96%
Sucrose Distearate	0.24%
Incroquat Behenyl TMS	0.48%
Tauranol WSP	0.95%

Ingredient	Weight Percent
Potassium Stearate	0.125%
USP Colloidal Oatmeal	0.99%
Calcium Stearate	18.80%
Maltodextrin	12.20%
Deionized Water	0.80%
Phenonip	1.00%
Bladderwrack Extract	0.033%
Algae Extract	0.033%
Pacific Sea Kelp Extract	0.033%
Fragrance	1.50%
Sodium Chloride	23.49%

3. The hand recovery products were sold in tubes containing 25 g, 50g and 100 g of product. The hand recovery product was also sold as part a kit containing other Crabtree & Evelyn products.

4. The total sales for the recovery product for calendar years 2004-2007 is set forth in the Table below:

Year	Total Hand Recovery Units Sold	Total Sales of Hand Recovery Units	% of Total C&E Sales
2004	110,195	\$1,578,110	2.4
2005	95,599	\$1,284,809	2.0
2006	95,047	\$1,378,341	2.1
2007	88,257	\$1,355,027	2.1

8. As evidenced by the sales data, the product has been commercially successful for Crabtree & Evelyn. Over 380,000 tubes were sold, generating over \$ 5,500,000 in sales over four years.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these

statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 6/30/2008



Lauren Trahan



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 09/964,143

) Art Unit 1617

Applicants: JAMES HUGH McLAUGHLIN

) Examiner:

Filed: September 25, 2001

) Shengjun Wang

For: EMOLLIENT SKIN CONDITIONING CREAM AND METHOD)

Assistant Commissioner of Patents
U.S. Patent and Trademark Office
Washington, D.C. 20231

Affidavit Under 37 CFR 1.132

STATE OF CONNECTICUT)

) SS: Woodstock

COUNTY OF WINDHAM)

JAMES HUGH McLAUGHLIN, being of full age and duly sworn according to law, deposes and says:

1. I am employed by Crabtree & Evelyn, Ltd., at 102 Peake Brook Road, P.O. 167, Woodstock, as a Creative New Product Developer. I am the inventor of the invention described and claimed in the above-identified patent application.
2. I received a Bachelor of Science Degree in Chemistry from Fairleigh Dickinson University, Rutherford, New Jersey, in 1964.
3. My work experience follows:
 - a. 1952 – 1968 - Unilever Company; Edgewater, New Jersey. Technician in the Perfume Department and as a Technician, Chemist and Section Manager in the New Product Development Group in Research & Development Department..
 - b. 1969 – 1983 - Center For New Product Development, New York, New York. Chief Chemist and principal.

- c. 1983 – 1998 – James H. McLaughlin New Products, Inc., *Brooklyn*, Connecticut. Chief Chemist and Owner.
 - d. 1999 – to date – Crabtree & Evelyn, Ltd., Woodstock, Connecticut. Director of Creative New Product Development and Chief Chemist.
4. I noted that U.S. Patent 6,042,815 (Kellner et al.), the primary reference against the invention set forth in the subject application, teaches at column 2, lines 25 – 63, “Examples of gelling agents which may be used...are sodium, potassium, aluminum, magnesium, or calcium salts of stearic...acids....Preferably...sodium stearate.” Following those teachings, I performed the following experiments:
- a. In accordance with procedure set forth in Example 1 of Kellner et al., I heated 950 grams of water to 185° F. in a beaker and added 50 grams of sodium stearate powder with propeller agitation. The agitation was continued for five minutes and, thereafter the mixture was cooled to 75° F. The resultant composition was a solid.
 - b. I repeated the experiment outlined in a above using 900 grams of water and 100 grams of sodium stearate powder and again a solid composition was obtained upon the cooling the mixture from 185° F. to 75° F.
 - c. I repeated the experiment outlined in a above using 950 grams of water and 50 grams of calcium stearate powder with the result that the calcium stearate powder formed an upper layer on the water when agitation was discontinued.
 - d. I repeated the experiment outlined in a above using 900 grams of water and 100 grams of calcium stearate powder and again the calcium stearate particles formed an upper layer on the water when the agitation was discontinued.
5. Based upon the foregoing experiments, I concluded that sodium stearate and calcium

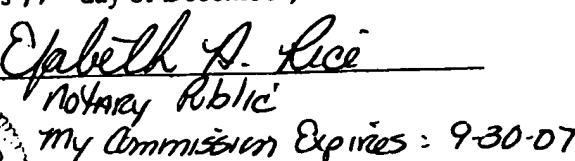
stearate are not equivalents as gelling agents for water as alleged by Kellner et al. This conclusion is in accord with the facts set forth at pages 532 and 801 of The Condensed Chemical Dictionary, Ninth Edition and page 3-227 of the CRC Handbook of Chemistry and Physics, 81st Edition, said pages being appended to this Affidavit. Page 801 of The Condensed Chemical Dictionary states that sodium stearate is water soluble whereas pages 3-1 and 3-227 of CRC Handbook of Chemistry and Physics states that calcium stearate is water-insoluble and has a melting point of 179.5°C. Further, page 532 of the The Condensed Chemical Dictionary states that magnesium stearate has a melting point of 88.5°C. and is water-insoluble and page 3-227 of the CRC Handbook of Chemistry and Physics states that aluminum stearate has a melting point 118°C. and is water-insoluble. In summary, sodium stearate is water soluble and in a concentrations of 5 – 10% by weight in water forms a solid gel whereas calcium stearate and magnesium stearate are water insoluble and in concentrations of 5 – 10% by weight in water do not form a gel. Therefore, the teaching in Kellner et al. that the sodium stearate and calcium stearate and magnesium stearate are equivalent gelling agents with water is FALSE and would not be believed by the ordinary person skilled in art.



JAMES HUGH McLAUGHLIN

Enc. Title page and pages 3-1 and 3-227 of CRC Handbook of Chemistry and Physics
Title page and pages 532 and 801 of The Condensed Chemical Dictionary

Sworn to and subscribed before me
this 17th day of December, 2003.



Elizabeth A. Rice
Notary Public
My Commission Expires: 9-30-07



The
Condensed Chemical
Dictionary

NINTH EDITION

Revised by

GESSNER G. HAWLEY

*Coeditor, Encyclopedia of Chemistry
Coauthor, Glossary of Chemical Terms*

Ref.
540.3 147
C 6335
(1977)



VAN NOSTRAND REINHOLD COMPANY
NEW YORK CINCINNATI ATLANTA DALLAS SAN FRANCISCO
LONDON TORONTO MELBOURNE

varnishes, and paper (filler); animal and vegetable oils (bleaching agent); odor absorbent; filter medium; catalyst and catalyst carrier; anticaking agent in foods. See also asbestos.

magnesium silicofluoride. See magnesium fluosilicate.

magnesium stannate $MgSnO_3 \cdot 3H_2O$.

Properties: White crystalline powder. Soluble in water. Approximate temperature of decomposition $340^\circ C$.

Hazard: Toxic by inhalation. Tolerance, 2 mg per cubic meter of air.

Use: Additive in ceramic capacitors.

magnesium stearate $Mg(C_{18}H_{35}O_2)_2$, or with one H_2O .

Technical grade contains small amounts of the oleate and 7% magnesium oxide MgO .

Properties: Soft white light powder; sp. gr. 1.028; m.p. $88.5^\circ C$ (pure), $132^\circ C$ (technical); tasteless; odorless. Insoluble in water and alcohol. Nontoxic. Nonflammable.

Grades: Technical; U.S.P.; F.C.C.

Containers: Fiber cans; multiwall paper sacks.

Uses: Dusting powder; lubricant in making tablets; drier in paints and varnishes; flattening agent; in medicines; stabilizer and lubricant for plastics; emulsifying agent in cosmetics; in foods as anticaking agent, binder, emulsifier.

magnesium sulfate (a) $MgSO_4$; (b) (epsom salts) $MgSO_4 \cdot 7H_2O$.

Properties: Colorless crystals; saline, bitter taste; neutral to litmus; sp. gr. (a) 2.65; (b) 1.678; (a) decomposes $1124^\circ C$; (b) loses $6H_2O$ at $150^\circ C$; $7H_2O$ at $200^\circ C$; soluble in glycerol; very soluble in water; sparingly soluble in alcohol. Low toxicity. Noncombustible.

Derivation: (a, b) Action of sulfuric acid on magnesium oxide, hydroxide or carbonate; (b) mined in a high degree of purity.

Grades: Technical; C.P.; U.S.P.; F.C.C.

Uses: Fireproofing; textiles (warp-sizing and loading cotton goods, weighting silk, dyeing and calico printing); mineral waters; catalyst carrier; ceramics; fertilizers; paper (sizing); cosmetic lotions; dietary supplement; medicine (antidote).

magnesium sulfide MgS .

Properties: Red brown crystalline solid; sp. gr. 2.84; decomposes above $2000^\circ C$. Decomposes in water. Low toxicity.

Uses: Source of hydrogen sulfide; laboratory reagent.

magnesium sulfite $MgSO_3 \cdot 6H_2O$.

Properties: White, crystalline powder; slightly soluble in water; insoluble in alcohol. Sp. gr. 1.725; m.p. loses $6H_2O$ at $200^\circ C$; b.p., decomposes. Low toxicity.

Derivation: Action of sulfurous acid on magnesium hydroxide.

Uses: Medicine; paper pulp.

magnesium tetrahydrogen phosphate. See magnesium phosphate, monobasic.

magnesium thiosulfate (magnesium hyposulfite)

$MgS_2O_3 \cdot 6H_2O$.

Properties: Colorless crystals; soluble in water; insoluble in alcohol. Sp. gr. 1.818; loses $3H_2O$ at $170^\circ C$.

Use: Medicine.

magnesium titanate Mg_2TiO_4 . Used in electronics.

magnesium trisilicate. U.S.P. specifies not less than 20% MgO and 45% SiO_2 ; similar to the F.C.C. requirements under magnesium silicate. See also talc.

Properties: Fine, white, odorless, tasteless powder; free from grittiness. Insoluble in water and alcohol; readily decomposed by mineral acids. Noncombustible.

Derivation: By reaction of soluble magnesium salts with soluble silicates.

Grades: Technical; U.S.P.

Uses: Industrial odor absorbent; decolorizing agent; antioxidant; medicine.

magnesium tungstate (magnesium wolframate)

$MgWO_4$.

Properties: White crystals; sp. gr. 5.66; soluble in acids; insoluble in water and alcohol. Low toxicity. Noncombustible.

Derivation: Interaction of solutions of magnesium sulfate and ammonium tungstate.

Uses: Fluorescent screens for x-rays; luminescent paint.

magnesium zirconate $MgO \cdot ZrO_2$.

Properties: Powder; sp. gr. 4.23; m.p. $2060^\circ C$.

Use: Electronics.

magnesium zirconium silicate $MgZrSiO_4$, or $MgO \cdot ZrO_2 \cdot SiO_2$.

Properties: White solid; m.p. $1760^\circ C$; density 80 lb/cu ft; insoluble in water; alkalies; slightly soluble in acids. Noncombustible.

Containers: 80-lb paper bags; 500-lb drums.

Uses: Electrical resistor ceramics; glaze opacifier.

"Magnesol."³³ Trademark for a synthetic adsorptive magnesium silicate.

Uses: Solvent purification, clarification and recovery; oil refining; deodorizing and decolorizing of oils and fats.

magnetic separation. Removal of bits of iron and other tramp metal from a material as it passes to a screen or classifying device by means of a magnet placed close to the stream of particles.

magnetite (lodestone; iron ore, magnetic) Fe_3O_4 , often with titanium or magnesium. A component of taconite (q.v.).

Properties: Black mineral; black streak; submetallic, or dull to metallic luster. Contains 72.4% iron. Readily recognized by strong attraction by magnet. Soluble in powder form in hydrochloric acid. Decomposes at $1530^\circ C$ to ferric oxide Fe_2O_3 . Sp. gr. 4.9-5.2; hardness 5.5-6.5.

See also iron oxide, black.

magnetochemistry. A subdivision of chemistry concerned with the effect of magnetic fields on chemical compounds; analysis and measurement of these effects (e.g., magnetic moment and magnetic susceptibility) are important tools in crystallographic research and determination of molecular structures.

Substances that are repelled by a magnetic field are diamagnetic (water, benzene); those that are attracted are paramagnetic (oxygen, transition element compounds). Diamagnetic materials have only induced magnetic moment; paramagnetic materials have permanent magnetic moment. Magnetochemistry has been useful in detection of free radicals, elucidation of molecular configurations of highly complex compounds, and in its application to catalytic and chemisorption phenomena. See also nuclear magnetic resonance.

magnetohydrodynamics (MHD). The behavior of high-temperature ionized gases passed through a magnetic field. A power-generating method using MHD involves an open cycle in which hot combustion gases

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solidification; glass foam; pigments; drilling fluids; binder for foundry cores and molds; waterproofing mortars and cements; impregnating wood.

sodium silicoaluminolate. See sodium aluminosilicate.

sodium silicofluoride. See sodium fluorosilicate.

sodium silico-12-molybdate. See sodium 12-molybdate.

sodium 12-silicotungstate. See sodium 12-tungstosilicate.

sodium silver chloride. See silver sodium chloride.

sodium silver thiosulfate. See silver sodium thiosulfate.

sodium alpha-sodioacetate. See alpha-sodiosodium acetate.

sodium sorbate $\text{CH}_3\text{CH}=\text{CHCH}=\text{CHCOONa}$. Combustible. Nontoxic.

Uses: Food preservative.

sodium stannate $\text{Na}_2\text{SnO}_3 \cdot 3\text{H}_2\text{O}$, or $\text{Na}_2\text{Sn}(\text{OH})_6$.

Properties: White to light tan crystals; soluble in water; insoluble in alcohol; decomposes in air. Aqueous solution slightly alkaline. Loses $3\text{H}_2\text{O}$ at 140°C . Derivation: (a) By fusion of metastannic acid and sodium hydroxide. (b) By boiling tin scrap and sodium plumbate solution.

Hazard: Toxic. Tolerance, 2 mg per cubic meter of air.

Uses: Mordant in dyeing; ceramics; glass; source of tin for electroplating and immersion plating; textile fireproofing; stabilizer for hydrogen peroxide; blueprint paper; laboratory reagent.

sodium stearate $\text{NaOOCC}_18\text{H}_{35}$.

Properties: White powder with fatty odor. Soluble in hot water and hot alcohol; slowly soluble in cold water and cold alcohol; insoluble in many organic solvents.

Impurities: Varying quantities of sodium palmitate.

Grade: Technical.

Containers: 150-lb drums; 200-lb barrels.

Uses: Waterproofing and gelling agent; toothpaste and cosmetics; stabilizer in plastics.

sodium stearoyl 2-lactylate.

Properties: White powder. Melting range $46\text{--}52^\circ\text{C}$. Nontoxic.

Derivation: Sodium salt of reaction product of lactic and stearic acids.

Uses: Emulsifier; dough conditioner; whipping agent in baked products, desserts, and mixes; complexing agent for starches and proteins.

sodium styrenesulfonate $\text{CH}_2=\text{CH}_2\text{C}_6\text{H}_4\text{SO}_3\text{Na}$. White, free-flowing powder.

Use: Reactive monomer. See sodium polystyrenesulfonate.

sodium subsulfite. See sodium thiosulfate.

sodium succinate $\text{Na}_2\text{C}_4\text{H}_6\text{O}_4 \cdot 6\text{H}_2\text{O}$.

Properties: White crystals or odorless granules; soluble in water. Loses $6\text{H}_2\text{O}$ at 120°C .

Use: Medicine.

sodium sulfate, anhydrous Na_2SO_4 . See also salt cake.

Properties: White crystals or powder; odorless; bitter saline taste; sp. gr. 2.671; m.p. 888°C ; soluble in water and glycerol; insoluble in alcohol. Noncombustible; nontoxic.

Derivation: (a) By-product of hydrochloric acid production from salt and sulfuric acid. (b) Purification of natural sodium sulfate from deposits or brines. (c) By-product of phenol manufacture (caustic fusion process); (d) Hargreaves process (q.v.).

Grades: Technical; C.P.; detergent; rayon; glass makers.

Containers: Bags; drums.

Uses: Manufacture of kraft paper, paperboard, and glass; filler in synthetic detergents; sodium salts; ceramic glazes; processing textile fibers; dyes; tanning; glass; pharmaceuticals; freezing mixtures; laboratory reagent; food additive.

sodium sulfate decahydrate (sodium sulfate, crystals; Glauber's salt) $\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$.

Properties: Large transparent crystals, small needles, or granular powder; sp. gr. 1.464 (crystals); m.p. 33°C (liquefies); loses water of hydration at 100°C .

Soluble in water and glycerin; insoluble in alcohol; solutions neutral to litmus. Nontoxic; nonflammable.

Derivation: Crystallization of sodium sulfate from water solutions. (Glauber's salt); also occurs in nature as mirabilite (q.v.).

Grades: Technical; N.F.

Uses: See under anhydrous form.

sodium sulfhydrate. See sodium hydrosulfide.

sodium sulfide (a) Na_2S ; (b) $\text{Na}_2\text{S} \cdot 9\text{H}_2\text{O}$.

Properties: Yellow or brick red lumps or flakes or deliquescent crystals; (a) sp. gr. 1.856 (14°C); m.p. 1180°C ; (b) sp. gr. 1.427 (16°C); decomposes at 920°C . Soluble in water; slightly soluble in alcohol; insoluble in ether; largely hydrolyzed to sodium acid sulfide and sodium hydroxide.

Derivation: By heating sodium acid sulfate with salt and coal to above 950°C , extraction with water, and crystallization.

Grades: Flake; fused; chip sulfide (60% Na_2S). 60% fused and broken; 30% crystals; liquid.

Containers: Barrels; drums; bulk.

Hazard: Flammable, dangerous fire risk. Strong irritant to skin and tissue. Liberates toxic hydrogen sulfide on contact with acids.

Uses: Organic chemicals; dyes (sulfur); intermediates; rayon (denitrating); leather (depilatory); paper pulp; solvent for gold in hydrometallurgy of gold ores; sulfiding oxidized lead and copper ores preparatory to flotation; sheep dips; photographic reagent; engraving and lithography; analytical reagent.

Shipping regulations: (Rail) Yellow label. (Air) Flammable Solid label.

sodium sulfite (a) Na_2SO_3 ; (b) $\text{Na}_2\text{SO}_3 \cdot 7\text{H}_2\text{O}$.

Properties: White crystals or powder; saline, sulfurous taste. Soluble in water; sparingly soluble in alcohol. Sp. gr.: (a) 2.633; (b) 1.5939. M.p.: (a) decomposes; (b) loses $7\text{H}_2\text{O}$ at 150°C .

Derivation: (a) Sulfur dioxide is reacted with soda ash and water, and a solution of the resulting sodium bisulfite is treated with additional soda ash; (b) by-product of the caustic fusion process for phenol.

Grades: Reagent; technical; F.C.C.

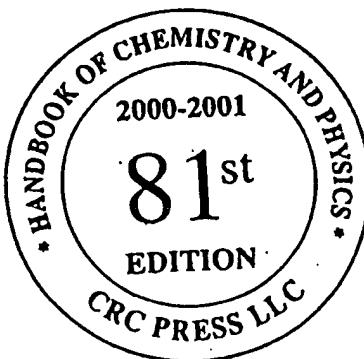
Containers: Bags; drums.

Hazard: Use prohibited in meats and other sources of Vitamin B.

Uses: Paper industry (semichemical pulp); water treatment; photographic developer; food preservative and antioxidant; textile bleaching (anticlolor); dietary supplements.

CRC Handbook of Chemistry and Physics

A Ready-Reference Book of Chemical and Physical Data



Editor-in-Chief

David R. Lide, Ph.D.
Former Director, Standard Reference Data
National Institute of Standards and Technology



CRC Press
Boca Raton London New York Washington, D.C.

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178 8275

PHYSICAL CONSTANTS OF ORGANIC COMPOUNDS

The basic physical constants for over 12,000 organic compounds are presented in this table, along with structures and references to other sources of information. An effort has been made to include the compounds most frequently encountered in the laboratory, the workplace, and the environment. The selection was based mainly on the appearance of the compounds in various specialized tables in this *Handbook* and in other widely used reference sources, such as the *Merck Index* and the *DIPPR Database of Pure Compound Properties*. The occurrence of a compound on regulatory lists of hazardous chemicals was also taken into consideration, as was the availability of reliable physical constant data. Clearly, criteria of this type are somewhat subjective, and compounds considered important by some users have undoubtedly been omitted. Suggestions for additional compounds or other improvements are welcomed.

The data in the table have been taken from many sources, including both compilations and the primary literature. Where conflicts were found, the value deemed most reliable was chosen. Some of the useful compilations of physical property data are listed at the end of this introduction.

The table is arranged alphabetically by the primary name, which is generally the Index Name from the 8th or 9th Collective Index of Chemical Abstracts Service (CAS). In a few cases, especially pesticides and pharmaceuticals, the common name is used rather than the more complex systematic name. By convention, CAS Index Names are written in inverted order, e.g., chloromethane is listed as methane, chloro and ethyl acetate as acetic acid, ethyl ester. Furthermore, certain important compounds are listed under Index Names which differ from the names by which they are commonly known (e.g. aniline appears as benzenamine and acetone as 2-propanone). In order to facilitate the location of compounds in the table, three indexes are provided:

- **Synonym Index:** Includes common synonyms, but not the primary name by which the table is arranged.
- **Molecular Formula Index:** Lists compounds by molecular formula in the Hill order (see Preface to this *Handbook*).
- **CAS Registry Number Index:** Lists compounds by Chemical Abstracts Service Registry Number.

Two lines of data appear for each compound. The explanation of the data fields follows.

Top Line:

- No.: An identification number used in the indexes and to identify the structure diagrams.
- Name: Primary name, generally the CAS Index Name.
- Mol. Form.: The molecular formula written in the Hill convention.
- CAS RN: The Chemical Abstracts Service Registry Number assigned by CAS as a unique identifier for the compound.
- Merck No: Monograph Number in *The Merck Index, Eleventh Edition*. It should be noted that this is not a unique identifier for a single compound, since several derivatives or isomers of a compound may be included in the same Monograph.
- Bell. Ref: Citation to the *Beilstein Handbook of Organic Chemistry*. An entry of 5-18-11-01234, for example, indicates that the compound may be found in the 5th Series, Volume 18, Subvolume 11, page 1234.
- Solubility: Solubility in common solvents on a relative scale: 1 = insoluble; 2 = slightly soluble; 3 = soluble; 4 = very soluble; 5 = miscible; 6 = decomposes. See List of Abbreviations for the solvent abbreviations.

Bottom line:

- **Synonym:** A synonym in common use. When the primary name is non-systematic, the systematic name appears here.
- **Mol. Wt.:** Molecular weight (relative molar mass) as calculated with the 1991 IUPAC Standard Atomic Weights.
- **mp/°C:** Normal melting point in °C. Although some values are quoted to 0.1°C, uncertainties are typically several degrees Celsius. A value is sometimes followed by "dec", indicating decomposition is observed at the stated temperature (so that it is probably not a true melting point). See the List of Abbreviations for other abbreviations.
- **bpt/°C:** Boiling point in °C. When available, the normal boiling point is given first, without a superscript. This is the temperature at which the liquid phase is in equilibrium with the vapor at a pressure of 760 mmHg (101.325 kPa). Boiling point values at reduced pressure are also given in many cases; here the superscript indicates the pressure in mmHg. A "dec" or "exp" following the value indicates decomposition or explosion has been observed at the boiling point. A simple entry of "exp" (sometimes followed by a temperature) indicates explosion may occur on heating, even below the boiling point. An entry of "sub" indicates that no boiling point is available, but measurable vapor (sublimation) pressure has been observed upon heating the solid. A temperature may be given, but no precise meaning can be attached because the pressure is not specified.
- **den/g cm⁻³:** density (mass per unit volume) in g/cm³. The superscript indicates the temperature in °C. Values are given only for the liquid and solid phases, and all values are true densities, not specific gravities. The number of decimal places gives a rough estimate of the accuracy of the value.
- **n_D:** Refractive index, at the temperature indicated by the superscript. Unless otherwise indicated, all values refer to a wavelength of 589 nm (sodium D line). Values are given only for liquids and solids.

Structures are given, when available, in the section following the main table, using the No. in the first column as the linking identifier.

PHYSICAL CONSTANTS OF ORGANIC COMPOUNDS (continued)

No.	Name Synonym	Mol. Form. Mol. Wt.	CAS RN	Merck No.	Bell. Ref. d ₄₀ g cm ⁻³	Solubility <i>n</i> _D
8238	Octadecanedioic acid, diethyl ester	C ₂₀ H ₃₆ O ₄ 370.57	1472-80-8 54.5	240 ¹²	4-02-00-02176	eth 4; EtOH 4
8239	Octadecanedioic acid, 9,10-dihydroxy-, (<i>R</i> ', <i>R</i> ''-(<i>S</i>)- Phytolanic acid	C ₁₉ H ₃₄ O ₆	23843-52-8	7297	4-03-00-01250	
8240	Octadecane, 1-(ethenyl oxy)-	C ₁₉ H ₃₆ O 266.54	630-02-9 30	182 ³	4-01-00-02057 0.8138 ⁴⁰	chl 2
8241	Octadecane, 3-ethyl-5-(2-ethylbutyl)-	C ₂₁ H ₄₄ 368.71	55282-12-7	229.5 ¹⁰	4-01-00-00568 0.8115 ²⁰	1.4523 ²⁰
8242	Octadecane, 1-iodo-	C ₁₉ H ₃₅ I 380.40	629-93-8 34	383	4-01-00-00556 1.0694 ²⁰	H ₂ O 1; EtOH 2; eth 2
8243	Octadecenonitrile	C ₁₉ H ₃₅ N 365.48	638-65-3 41	382	4-02-00-01242 0.8325 ²⁰	H ₂ O 1; EtOH 3; eth 4; ace 4
8244	1-Octadecanethiol	C ₁₉ H ₃₆ S 288.57	2885-00-9 30	204-1011	4-01-00-01884 0.8475 ²⁰	eth 4
8245	Stearyl mercaptan					1.4645 ²⁰
8246	Octadecane, 9-p-tolyl-	C ₂₀ H ₄₄ 344.62	4445-08-3	185 ¹⁰	4-03-00-01221 0.8549 ²⁰	
8247	Toluene, <i>p</i> -(1-octyldecyl)-					1.4811 ²⁰
8248	9,11,13-Octadecanetrienoic acid (2,2,2)	C ₁₉ H ₃₆ O ₃ 276.44	3884-88-8 48.5			
8249	Stearic acid	C ₁₈ H ₃₆ O ₂ 264.48	57-11-4 68.8	8781 350 dec; 232 ¹⁵	4-02-00-01206 0.8408 ²⁰	H ₂ O 1; EtOH 2; eth 4; ace 3
8250	Octadecanoic acid, aluminum salt	C ₁₉ H ₃₇ AlO ₈ 677.41	637-12-7 118	370	4-02-00-01208	H ₂ O 1; EtOH 3; path 3
8251	Octadecanoic acid, anhydride	C ₁₈ H ₃₆ O ₃ 550.59	638-08-4 72		4-02-00-01239 0.8385 ²⁰	H ₂ O 1; EtOH 1; eth 2; bz 2
8252	Octadecanoic acid, 18-bromo-	C ₁₈ H ₃₅ BrO ₂ 363.38	2538-38-1	240 ⁴	4-02-00-00381	1.4382 ²⁰
8253	Stearic acid, 18-bromo-		75.5			bz 4; eth 4; EtOH 4
8254	Octadecanoic acid, butyl ester	C ₂₂ H ₄₀ O ₂ 340.58	123-05-5 27	1589 343	4-02-00-01218 0.8545 ²⁰	H ₂ O 1; EtOH 3; ace 4
8255	Butyl stearate					1.4328 ²⁰
8256	Octadecanoic acid, calcium salt	C ₂₀ H ₃₇ CaO ₄ 607.03	1592-23-0 178.5	1710	4-02-00-01206	H ₂ O 1; EtOH 1; eth 1
8257	Octadecanoic acid, cyclohexyl ester	C ₂₄ H ₄₈ O ₂ 366.63	104-07-4 44		4-08-00-00038 0.889 ¹⁵	eth 4
8258	Stearic acid, cyclohexyl ester					
8259	Octadecanoic acid, 9,10-dihydroxy- 9,10-Dihydrostearic acid	C ₁₉ H ₃₆ O ₄ 318.48	120-87-8 90	3171	4-03-00-01092	H ₂ O 1; EtOH 2; eth 2
8260	Octadecanoic acid, 2,3-dihydroxypropyl ester, (<i>t</i>)-	C ₂₁ H ₄₂ O ₄	22610-83-5 358.58		4-02-00-01225	H ₂ O 1; EtOH 2; eth 2; lg 3
8261	Octadecanoic acid, 1,2-ethanediyl ester	C ₁₉ H ₃₆ O ₄ 553.00	627-83-8 79	328	4-02-00-01223 0.8581 ¹⁸	H ₂ O 1; EtOH 1; eth 4; ace 4
8262	Octadecanoic acid, ethyl ester	C ₁₉ H ₃₆ O ₂ 312.54	111-61-5 33	241 ²⁰ 199 ¹⁰	4-02-00-01218 1.057 ²⁰	H ₂ O 1; EtOH 3; eth 3; ace 4
8263	Octadecanoic acid, hexadecyl ester	C ₂₆ H ₅₂ O ₂ 568.81	1190-63-2 57		4-02-00-01220	ace 4; eth 4; chl 4 1.4410 ⁷⁰
8264	Octadecanoic acid, 2-(2-(2- hydroxyethyl)ethoxy)ethyl ester	C ₂₀ H ₅₂ O ₈ 480.70	108-07-0	328	4-02-00-01220	1.1285 ¹⁵ 1.4593 ²⁰
8265	Octadecanoic acid, 2-hydroxyethyl ester	C ₂₀ H ₅₀ O ₃ 328.54	111-60-4 60.5	189-81 ³	4-02-00-01222 0.8780 ⁶⁰	EtOH 2; eth 3 1.4310 ⁶⁰
8266	Octadecanoic acid, lead (II) salt	C ₁₉ H ₃₆ O ₄ Pb 774.15	7428-48-0 125		4-02-00-01208	H ₂ O 1; Hot EtOH 3; eth 1
8267	Lead stearate					1.4
8268	Octadecanoic acid, 14-methyl-	C ₁₉ H ₃₆ O ₂ 298.51	94434-84-7 37.5	182 ⁴	4-02-00-01265	
8269	Stearic acid, 14-methyl					0.9405 ²⁰
8270	Octadecanoic acid, 17-methyl-	C ₁₉ H ₃₆ O ₂ 298.51	2724-59-6 67.5	180 ³	4-02-00-01260	0.8420 ⁷⁰ 1.4338 ⁷⁰
8271	Stearic acid, 9-methyl-	C ₁₉ H ₃₆ O ₂ 298.51	68073-38-3 40	171 ¹	4-02-00-01271	0.9880 ²⁰
8272	Stearic acid, 9-methyl					
8273	Octadecanoic acid, 3-methylbutyl ester	C ₂₂ H ₄₆ O ₂ 354.62	627-88-3 25.5	192 ²	2-02-00-00353	H ₂ O 1; EtOH 2; eth 3; ace 3 1.4335 ⁵⁰
8274	Stearic acid, isopentyl ester	C ₁₉ H ₃₆ O ₂ 298.51	112-81-8 38.1	443; 215 ¹⁸	4-02-00-01218 0.8488 ⁴⁰	eth 4; chl 4 1.4367 ⁴⁰
8275	Octadecanoic acid, methyl ester	C ₁₉ H ₃₆ O ₂ 298.51	112-10-7 28	207 ⁶	4-02-00-01219	ace 4; eth 4; EtOH 4; chl 4 3-02-00-01017
8276	Octadecanoic acid, 2-methylpropyl ester	C ₂₁ H ₄₂ O ₂ 340.59	648-13-0 28.9	5034 223 ¹⁸	0.8488 ²⁰	eth 4
8277	Octadecanoic acid, 12-oxo-, ethyl ester	C ₂₀ H ₃₆ O ₃ 328.52	88472-81-1 38	199 ³	3-03-00-01204	EtOH 4
8278	Stearic acid, 12-oxo-, ethyl ester					
8279	Octadecanoic acid, pentyl ester	C ₂₁ H ₄₆ O ₂ 354.62	6382-13-4 30		4-02-00-01220	eth 4; EtOH 4 1.4342 ⁵⁰
8280	Stearic acid, pentyl ester					
8281	Octadecanoic acid, phenyl ester	C ₂₄ H ₄₆ O ₂ 380.58	637-55-8 52	207 ¹⁸	4-08-00-00818	H ₂ O 1; EtOH 3; eth 3
8282	Stearic acid, phenyl ester					
8283	Octadecanoic acid, 1,2,3-propanetriyl ester	C ₂₁ H ₄₀ O ₆ 891.50	555-43-1	6669	4-02-00-01233 0.8559 ⁸⁰	H ₂ O 1; EtOH 1; ace 3; bz 2
8284	Tristearin					
8285	Octadecanoic acid, propyl ester	C ₂₁ H ₄₂ O ₂ 328.58	3834-92-2 28.9	188.8 ²	4-02-00-01219 0.8452 ³⁰	ace 4; eth 4; EtOH 4 1.4400 ³⁰
8286	Octadecanoic acid, 9,10,12,13-tetrabromo-, methyl ester	C ₁₉ H ₃₄ Br ₄ O ₂ 614.09	82080-88-8 63	215 ¹⁸	4-02-00-01049	eth 4; EtOH 4; chl 4 1.4340 ⁴⁵
8287	Stearic acid, 9,10,12,13-tetrabromo-, methyl ester					

Docket No.: 077698-0012

**PATENT****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of : Customer Number: 20277
James H. MC LAUGHLIN : Confirmation Number: 1702
Application No.: 09/964,143 : Group Art Unit: 1617
Filed: September 25, 2001 : Examiner: Wang, Shengjun
For: EMOLLIENT SKIN CONDITIONING CREAM AND METHOD

DECLARATION BY LAUREN TRAHAN
UNDER 37 C.F.R. § 1.132

I, LAUREN TRAHAN, declare and say as follows:

1. I am employed by the assignee of the present application, Crabtree & Evelyn, as a formulation chemist.
2. I am a person skilled in the cosmetic chemistry arts. I am an active member of the Society of Cosmetic Chemists and past chairperson of the Mid-Atlantic Chapter of the Society of Cosmetic Chemistry. I graduated Cum Laude from Rensselaer Polytechnic Institute in May, 2000 with a Bachelor of Science degree in Chemical Engineering. From May 2000 to June 2001, I was a Scientist/Engineer for Procter & Gamble under the "Cover Girl" brand. From June 2001 to June 2005, I was a Senior Formulation Engineer supervising the research and development lab for C-Care, LLC. From June 2005 to September 2006, I was Director of Research and Development for JONATHAN|product, a hair care product line for celebrity artist, Jonathan Antin. From September 2006, I have been employed by Crabtree & Evelyn as a formulation chemist.

3. I have read and understood the Examiner's rejection dated June 29, 2007 rejecting the claims of the application over, *inter alia*, Zabotto et al. and Barker et al.

4. I developed and organized a test and test panel to evaluate and compare the products covered by the claims in the present application to the Barker products.

5. The test panel comprised 30 women. None of the panelists had any affiliation with Crabtree & Evelyn. Each of the panelists evaluated five hand-cleansing products.

6. The products evaluated are identified as by name and acronym as follows:

EP: Crabtree & Evelyn product called LaSource Hand recovery comprising the following:

Ingredient	Weight Percent
Macadamia Ternifolia Seed Oil	35.06%
Stearic Acid	0.552%
Butyrospermum Parkii (Shea Butter)	0.72%
Caprylic/Capric Triglyceride	0.48%
Isopropyl Myristate	0.96%
Dow Corning ® 345 Fluid	0.36%
Cetyl Alcohol	0.24%
Emulsifying Wax N.F.	0.96%
Sucrose Distearate	0.24%
Incroquat Behenyl TMS	0.48%
Tauranol WSP	0.95%
Potassium Stearate	0.125%
USP Colloidal Oatmeal	0.99%
Calcium Stearate	18.80%
Maltodextrin	12.20%
Deionized Water	0.80%
Phenonip	1.00%
Bladderwrack Extract	0.033%
Algae Extract	0.033%
Pacific Sea Kelp Extract	0.033%
Fragrance	1.50%
Sodium Chloride	23.49%

NT: Formulation EP as detailed above, omitting the surfactant, Tauranol WSP.

PC: Example 1 from Barker et al consisting of 40% petrolatum, 40% corn oil and 20% salt.

TE: P&G Olay Total Effects Age Defying Cleansing Cloths, a product purchased commercially which is covered by examples 1-5 of McAtee patent (U.S. Patent No. 6,153,208). The composition is as follows:

Petrolatum, PEG 100, Decyl Glucoside, Sodium Lauroyl Sarcosinate, Cocamidopropyl Hydroxysultaine, Cyclodextrin, Butylene Glycol, PEG 14M, Niacinamide, Panthenol (Provitamin B5), Tocopheryl Acetate (Vitamin E), Ascorbyl Glucoside, Salicylic Acid (Beta Hydroxy), Perfume (Fragrance), Polyquaternium 10, Phenoxyethanol, Benzyl Alcohol, Hamamelis Virginiana Extract (Witch Hazel), Propylparaben, Disodium EDTA, Sodium MA/Diisobutylene Copolymer, Silica, BHT, Sodium Laurate

MM: One Minute Manicure product of Mykytyn Enterprises, Inc - a product that is a salt scrub for hands to serve as a benchmark for this category. The composition is listed below:

Sea Salts, Dead Sea Salts, Sodium Sesquicarbonate, Magnesium Sulfate, Oils of Walnut, Grapeseed, Avocado, Apricot, Jojoba, Vitamin E, Essential Oils of: Peppermint, Orange, Lemon, Rosemary, Spearmint, Ruby Grapefruit

7. The original intention was to test products from both Barker et al and Zabotto et al. However, I had trouble sourcing many of the ingredients as set forth in the examples of Zabotto. Specifically, oily egg yolk extract containing egg lecithin as specified in Example 1, and polyglycerol alkylether obtained by the condensation of 7 moles of glycidol on a C18 2-diol as called for in Examples 2 to 4. As an alternative, I chose to test the Total Effects Age Defying Cleansing Cloths as an example of McAtee et al. And, I chose to test One Minute Manicure, which is also an anhydrous scrub containing a water-soluble exfoliant. It is marketed as a product to exfoliate, moisturize and nourish nails and skin, and is considered a benchmark for products developed to improve the condition of hands.

8. Each of the panelists was given 15 grams of product EP, 15 grams of product NT, 15 grams of product PC, 15 grams of product MM, 1 bag containing a single towelette of product TE with separate instructions included in the bag. The instructions for using product TE are attached as Exhibit A.

9. Each of the panelists was given five Questionnaires, one for each product to be evaluated. The Questionnaire is attached as Exhibit B.

10. Each panelist was instructed to use each product once following the procedure set forth below for each product and to complete one Questionnaire per product:

- (a) Apply the test product to dry hands, i.e. do not moisten hands with water.
- (b) Gently massage hands (front and back) for 15-20 seconds.
- (c) Rinse hands lightly with warm water (no soap or cleanser) and pat dry.
- (d) After rinsing, evaluate the product by completing the questionnaire identifying the product.

11. Each response to a question was assigned a value as set forth below:

Strongly agree = 100%

Somewhat agree = 75%

Neither agree nor disagree = 50%

Somewhat disagree = 25%

Strongly disagree = 0%

12. The mean or average of all responses to each question was calculated and the difference between the means was compared using a paired t-test. The paired t-test was used since the data was collected on the same population. Each panelist tested all five products. The paired t-test compares the differences in test results for each test product. In each case, the test results for each product were compared against product EP, the product that is covered by the McLaughlin application. In each case where there was a difference between the products tested, a confidence interval is listed, or the probability that the results are accurate. For example, in

Exhibit P, more panelists agreed that they would definitely purchase product EP versus the other four products tested. The results were true with 95% confidence, meaning there is a 5% chance that a panelist would definitely purchase another product versus product EP.

13. The results are summarized in attached Exhibits C to P. There was no data for Questions 6 and 7 of the Questionnaire (Exhibit B) because not enough of the panelists disagreed with Question 5 to compare the results.

14. Overall, the results of the panel testing show that the product EP defined by the claimed subject matter is significantly better than products PC and MM. See Exhibits C, E, F, G, I, K, O and P. In particular, the panelist agreed that the EP product felt better than products PC and MM while applying the product (Exhibit C); it rinsed away better than products PC and MM (Exhibit E); product EP had a better feel that the hands were clean after rinsing (Exhibit F); after rinsing and using product EP, the panelists were in substantial agreement that product EP was significantly different from Barker product PC leaving hands feeling good with not unpleasant residue (Exhibit G); the panelists agreed that product EP left skin conditioned without feeling abraded more so than products PC, MM and TE (Exhibits I and K); and overall, product EP was better than the product the panelists currently used and that they would purchase product EP over products PC, NT, MM and TE (Exhibits O and P).

15. Exhibit D shows that product EP had significantly less oily and greasy feel than products PC and MM as well as the EP product without the surfactant. The panel test results demonstrate that the product EP within the claimed composition does not leave a greasy after-feel when the composition is applied to and rinsed from skin with water as required by the claims in the present application.

16. Exhibit N shows that product EP provided a smoother and softer feel than all other products tested after rinsing. Although product TE faired better as shown in Exhibits C, D and E, the product was not a cream or gel, but a composition impregnated in a towelette such that the panelist would feel the towel more than the composition and water is used to apply the product. It is not applied in a cream or gel form. The results in Exhibit N demonstrate that using a surface active agent that forms a stable composition that effectively leaves a thin-film of the emollient material on the skin, effectively softens and smoothes the skin when the composition is removed from the skin with water and dried.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 12/28/2007



Lauren Trahan

Exhibit A

INSTRUCTIONS FOR PRODUCT TE:

1. Wet with water.
2. Rub to lather.
3. Cleanse using both sides: textured side to exfoliate, smooth side for delicate areas around eyes.
4. Rinse. For best results, use the smooth side to seal in moisture.
5. Throw away (do not flush).

Exhibit B

Name: _____

Date: _____

Product Code: _____

Directions: Please apply the test product to your dry hands (do not moisten with water). Gently massage into your hands, front and back, for 15 to 20 seconds. Rinse lightly with warm water (no soap or cleanser) and pat dry.

Please circle the response which best describes how well you agree to each of the following statements.

1. I like the way the product feels while applying it.

Strongly Agree	Somewhat Agree	Neither Agree Nor Disagree	Somewhat Disagree	Strongly Disagree
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2. The product feels too oily/greasy while applying it.

Strongly Agree	Somewhat Agree	Neither Agree Nor Disagree	Somewhat Disagree	Strongly Disagree
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3. The product rinses away easily.

Strongly Agree	Somewhat Agree	Neither Agree Nor Disagree	Somewhat Disagree	Strongly Disagree
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4. After rinsing and using this product, my hands feel clean.

Strongly Agree	Somewhat Agree	Neither Agree Nor Disagree	Somewhat Disagree	Strongly Disagree
----------------	----------------	----------------------------	-------------------	-------------------

5. After rinsing and using this product, my hands feel good with no unpleasant residue.

- a. Agree
- b. Disagree

If you disagreed with question 5, please answer questions 6 and 7. Otherwise, skip to question 8.

6. After rinsing and using this product, my hands have a tacky after feel.

Strongly Agree	Somewhat Agree	Neither Agree Nor Disagree	Somewhat Disagree	Strongly Disagree
----------------	----------------	----------------------------	-------------------	-------------------

7. After rinsing and using this product, my hands have a greasy after feel.

Strongly Agree	Somewhat Agree	Neither Agree Nor Disagree	Somewhat Disagree	Strongly Disagree
----------------	----------------	----------------------------	-------------------	-------------------

8. After rinsing and using this product, my hands do not feel stripped.

Strongly Agree	Somewhat Agree	Neither Agree Nor Disagree	Somewhat Disagree	Strongly Disagree
----------------	----------------	----------------------------	-------------------	-------------------

9. After rinsing and using this product, my skin feels conditioned without feeling abraded.

Strongly Agree	Somewhat Agree	Neither Agree Nor Disagree	Somewhat Disagree	Strongly Disagree
----------------	----------------	----------------------------	-------------------	-------------------

10. After rinsing the product, my hands feel hydrated/moisturized.

Strongly Agree	Somewhat Agree	Neither Agree Nor Disagree	Somewhat Disagree	Strongly Disagree
----------------	----------------	----------------------------	-------------------	-------------------

11. After using this product, my hands feel conditioned.

Strongly Agree	Somewhat Agree	Neither Agree Nor Disagree	Somewhat Disagree	Strongly Disagree
----------------	----------------	----------------------------	-------------------	-------------------

12. After using this product, my hands feel softer.

Strongly Agree	Somewhat Agree	Neither Agree Nor Disagree	Somewhat Disagree	Strongly Disagree
----------------	----------------	----------------------------	-------------------	-------------------

13. After using this product, my hands feel smoother.

Strongly Agree	Somewhat Agree	Neither Agree Nor Disagree	Somewhat Disagree	Strongly Disagree
----------------	----------------	----------------------------	-------------------	-------------------

14. After using this product, my hands feel immediately smoother and softer.

Strongly Agree	Somewhat Agree	Neither Agree Nor Disagree	Somewhat Disagree	Strongly Disagree
----------------	----------------	----------------------------	-------------------	-------------------

15. Overall, I feel this product is better than my current hand product:

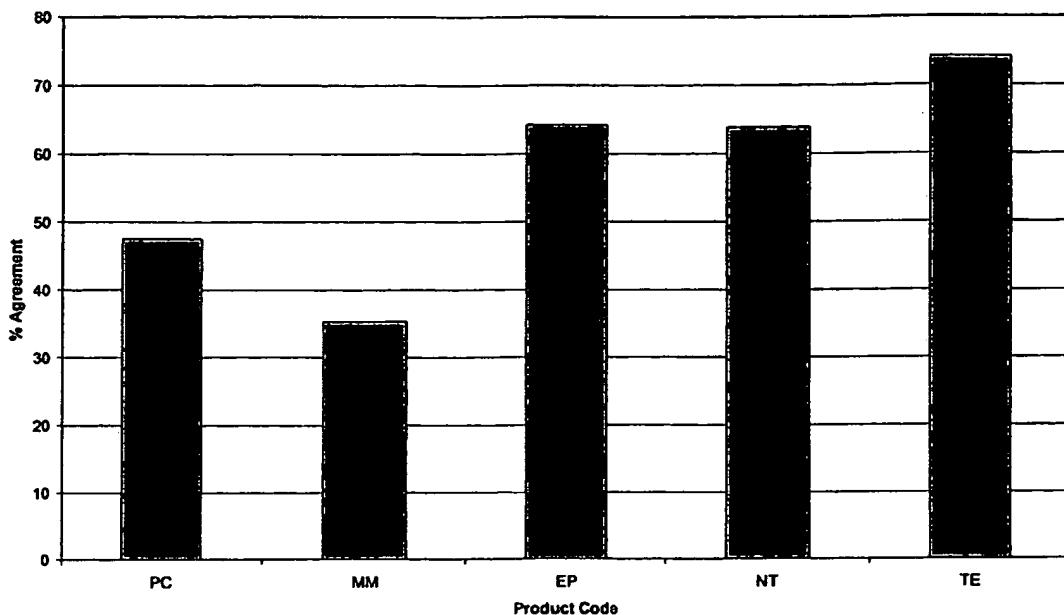
Strongly Agree	Somewhat Agree	Neither Agree Nor Disagree	Somewhat Disagree	Strongly Disagree
----------------	----------------	----------------------------	-------------------	-------------------

16. Based on your experience, which statement best describes your desire to purchase this product:

- a. Definitely would buy
- b. Probably would buy
- c. May or may not buy
- d. Probably would not buy
- e. Definitely would not buy

Exhibit C

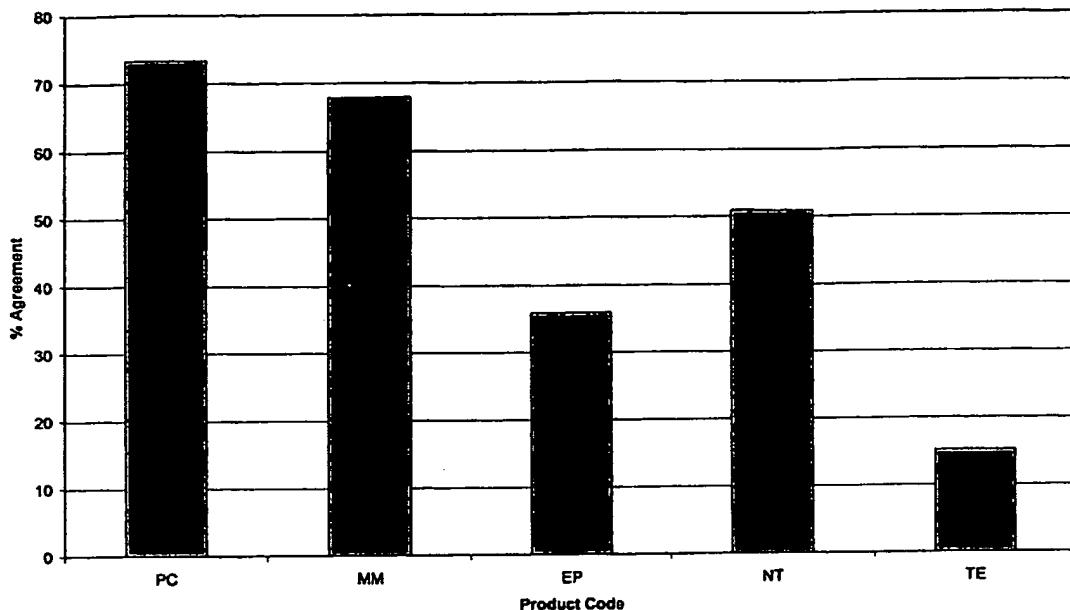
Overall Product Feel During Application
Question 1: I like the way the product feels while applying it.



The graph summarizes the responses to Question 1 on the questionnaire. The results show that the panelists preferred the feel of Crabtree & Evelyn product EP over the Barker product PC and the One Minute Manicure product MM. Using a paired t-test, the mean for product EP is significantly different than products PC and MM, with a 95% confidence interval. The data further shows that the panelists judged Crabtree & Evelyn product NT had a similar feel when compared to product EP. The NT product is the EP product without the surfactant. The panel did like the feel of the Proctor and Gamble product (TE) better than the EP and NT products, but product TE is completely different product from products EP and NT. Product TE is a towelette while all of the other products tested are in the form of a cream or gel.

Exhibit D

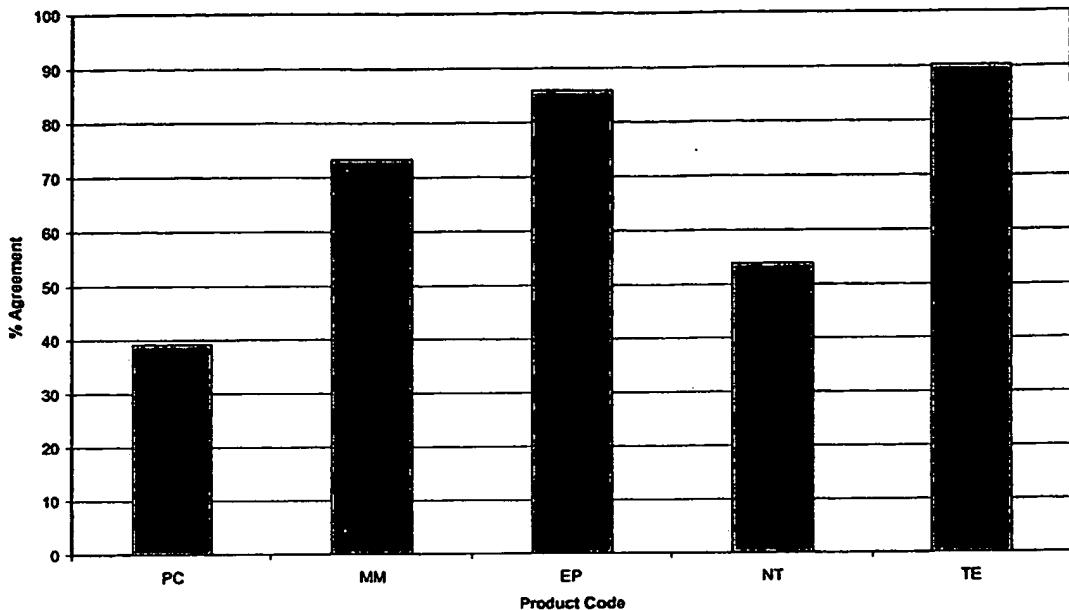
Product Feel During Application
Question 2: The product feels too oily/greasy while applying it.



The graph summarizes the responses to Question 2 on the questionnaire. The results show that the Crabtree & Evelyn products EP and NT do not have an oily or greasy feel while applying the product as compared to products PC and MM. The results demonstrate that product EP has significantly less oily/greasy than product NT. Using a paired t-test, the mean for product EP is significantly different than products PC, NT and MM, with a 95% confidence interval. The panelists found that product TE had a less oily feel. However, this result is due to the fact that the product TE was impregnated into a towelette and the panelist would feel the towelette more than the product itself.

Exhibit E

Product Rinse Off
Question 3: The product rinses away easily

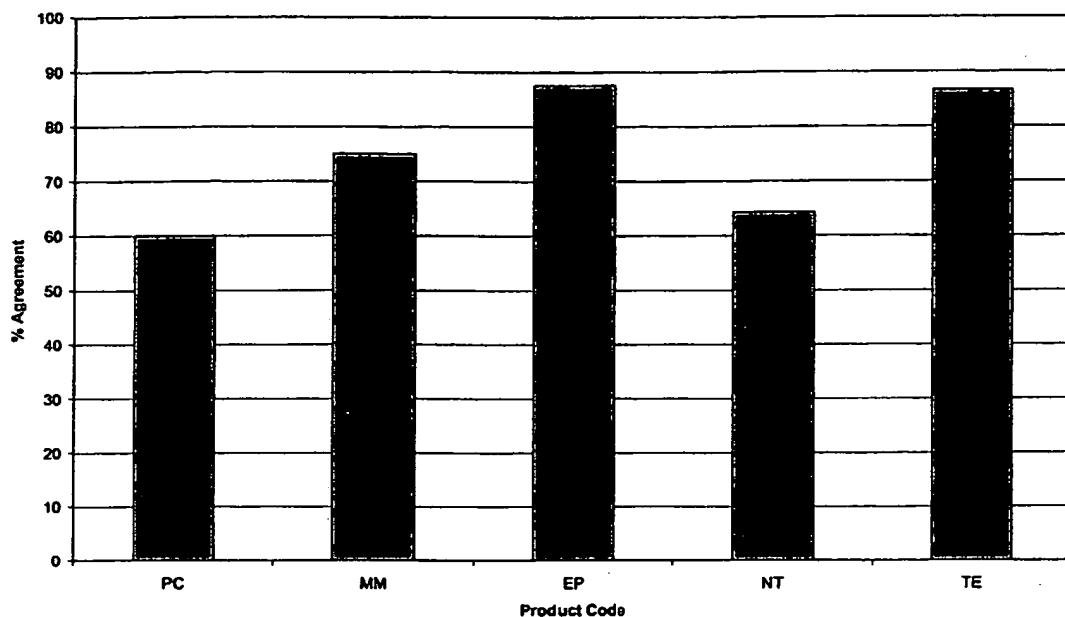


The graph summarizes the responses to Question 3 on the questionnaire. The results show that the panelists found that the Crabtree & Evelyn product EP rinses away more easily than products PC, MM and NT. Using a paired t-test, the mean for product EP is significantly different than product PC and NT, with a 95% confidence interval, and is also significantly different than product MM, with an 80% confidence interval. As for product TE, it rinses away more easily than product EP because water had to be used to apply the product whereas products EP, NT, PC and MM were applied dry state. Also, product TE has a higher surfactant load in the product.

Exhibit F

Clean After Feel

Question 4: After rinsing and using this product, my hands feel clean.

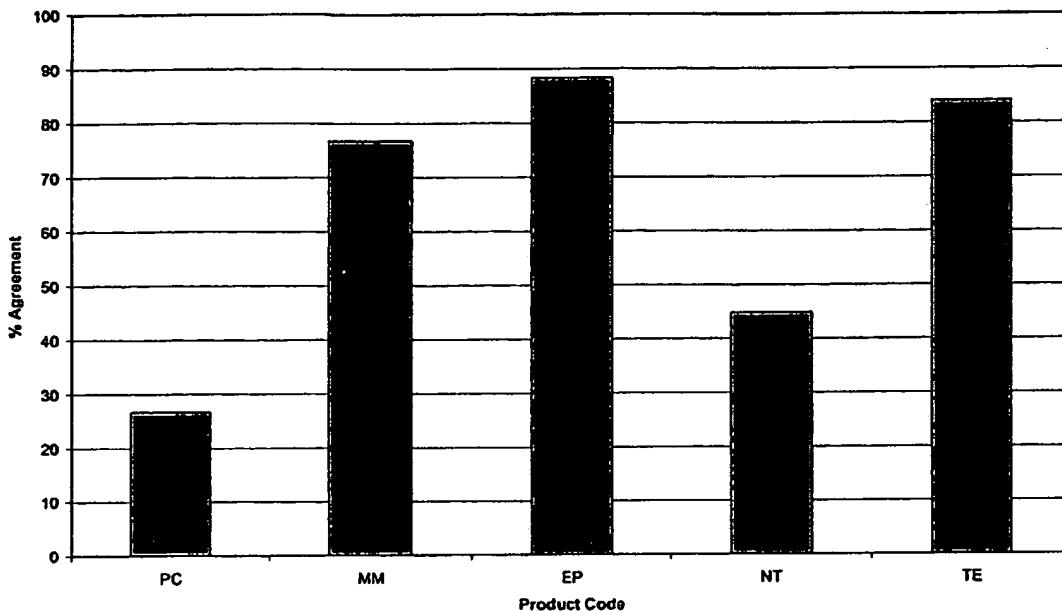


The graph summarizes the responses to Question 4 on the questionnaire. The results show that the panelists found that Crabtree & Evelyn product EP leaves their hands cleaner than products PC, MM and NT. Using a paired t-test, the mean for product EP is significantly different than products PC, MM and NT, with a 95% confidence interval. As for product TE, this product would be expected to leave hands feeling as clean, if not cleaner than product EP, because the product is applied using water while products PC, MM, EP and NT are applied in a dry state. Also, product TE has a higher surfactant load.

Exhibit G

Residual

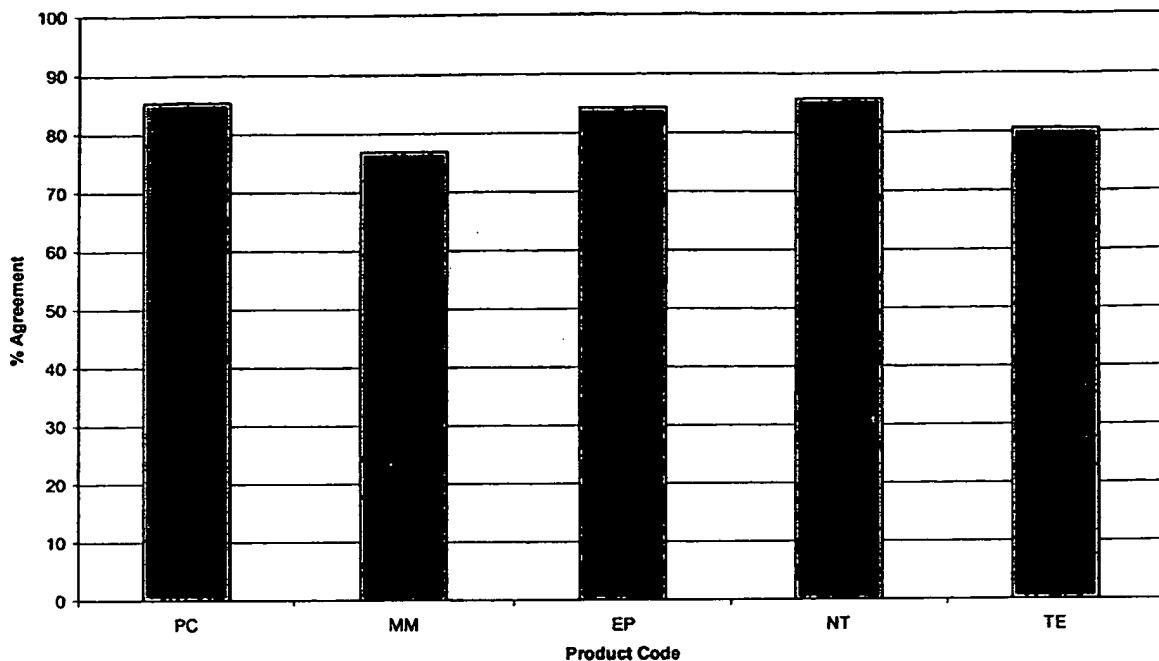
Question 5: After rinsing and using this product, my hands feel good with no unpleasant residue.



The graph summarizes the responses to Question 5 on the questionnaire. The results show that the panelists found that Crabtree & Evelyn product EP leaves their hands feeling good with no unpleasant residue more so than products PC and NT. Using a paired t-test, the mean for product EP is significantly different than products PC and NT, with a 95% confidence interval. However, using a paired t-test, the mean for product EP was not significantly different than products MM and TE with any high level of confidence on the size population (30 panelists), even though the graph shows a high level of agreement for these products.

Exhibit H

Stripped After Feel
Question 8: After rinsing and using this product, my hands do not feel stripped.

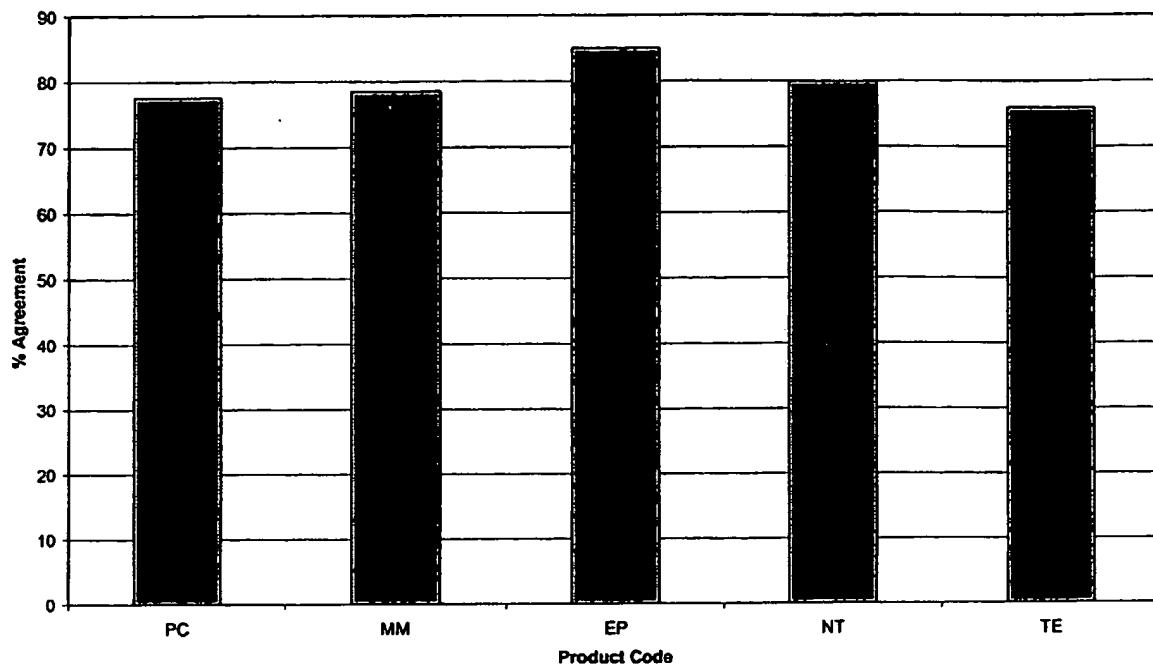


The graph summarizes the responses to Question 8 on the questionnaire. Using a paired t-test, the results show that there is no statistically significant difference between the stripped after feel the panelists experience after using products EP, NT, PC, MM or TE.

Exhibit I

Conditioned without Abrasion

Question 9: After rinsing and using this product, my skin feels conditioned without feeling abraded.

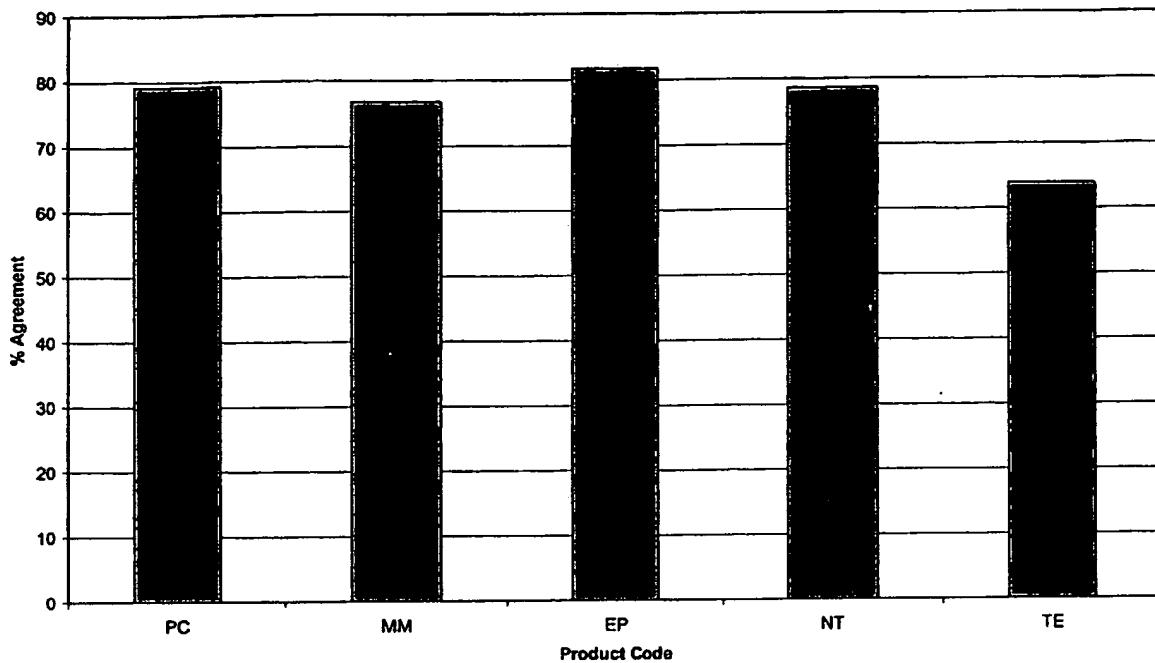


The graph summarizes the responses to Question 9 on the questionnaire. The results show that panelists agreed that product EP leaves skin conditioned without feeling abraded more so than products TE, PC and MM. Using a paired t-test, the mean for product EP is significantly different than product TE, with a 95% confidence interval while for products PC and MM, the confidence interval was 80% (still significant confidence interval). However, the paired t-test showed that there is no statistically significant difference between the conditioned after feel consumers experience after using products EP and NT. These two formulas were most closely related, the sole difference being that NT does not include any surfactant to facilitate rinse off.

Exhibit J

Hydration/Moisturization

Question 10: After rinsing the product, my hands feel hydrated/moisturized.

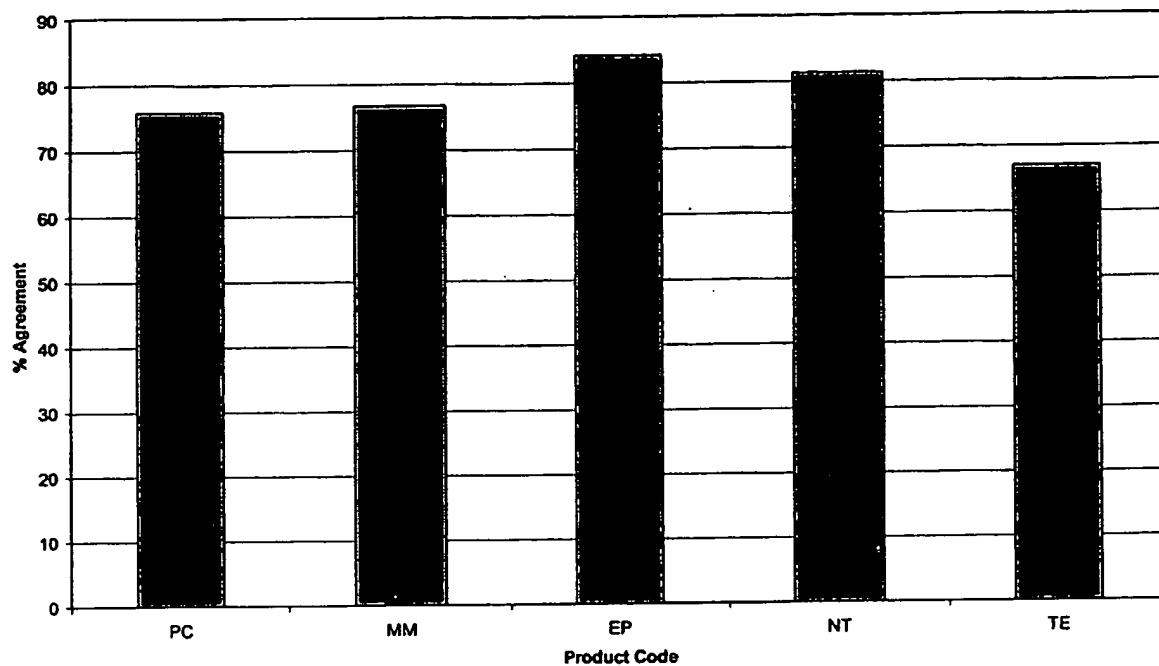


The graph summarizes the responses to Question 10 on the questionnaire. The results show that consumers agreed that product EP leaves hands feeling hydrated/moisturized more so than product TE. Using a paired t-test, the mean for product EP is significantly different than product TE, with a 95% confidence interval. However, using a paired t-test, the results show that there is no statistically significant difference between the feeling of hydration/moisturization consumers experience after using products EP, NT, PC or MM.

Exhibit K

Conditioned After Feel

Question 11: After using this product, my hands feel conditioned.

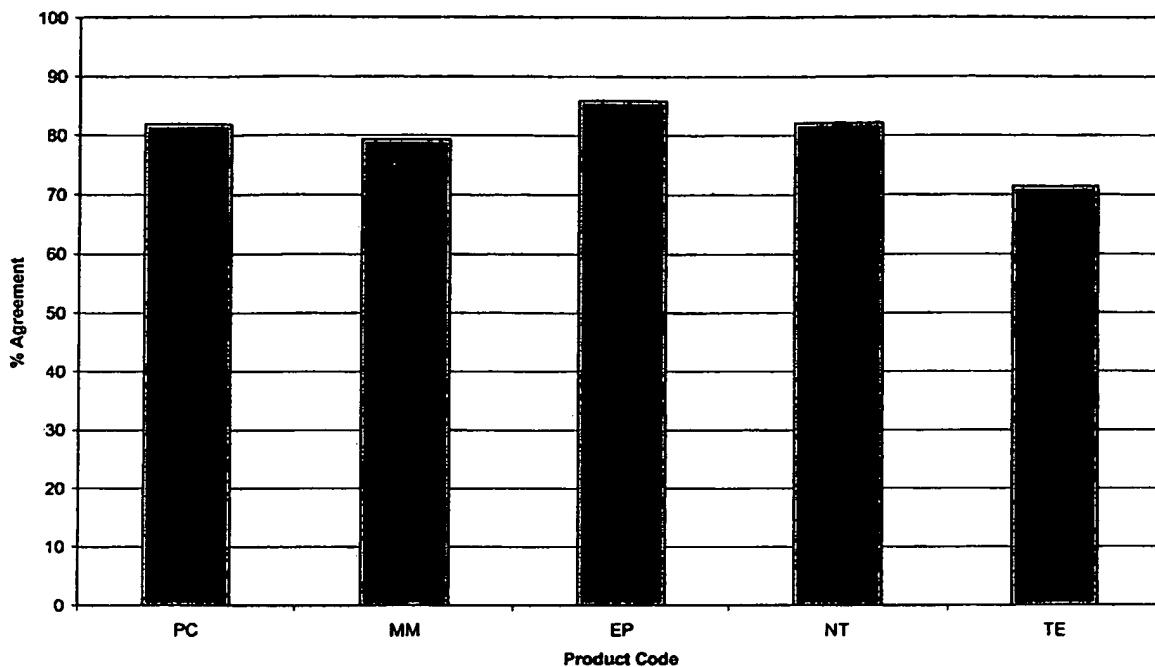


The graph summarizes the responses to Question 11 on the questionnaire. The results show that the panelists agreed that product EP leaves hands feeling conditioned more than product TE. Using a paired t-test, the mean for product EP is significantly different than product TE, with a 95% confidence interval. Further, the results show that consumers agreed that product EP leaves skin feeling conditioned more than products PC and MM. Using a paired t-test, the mean for product EP is significantly different than products PC and MM, with an 80% confidence interval. However, using a paired t-test, the results show that there is no statistically significant difference between the conditioned after feel consumers experience after using products EP and NT. As previously noted, these two formulas were most closely related, the sole difference being that NT does not include any surfactant.

Exhibit L

Softer After Feel

Question 12: After using this product, my hands feel softer.

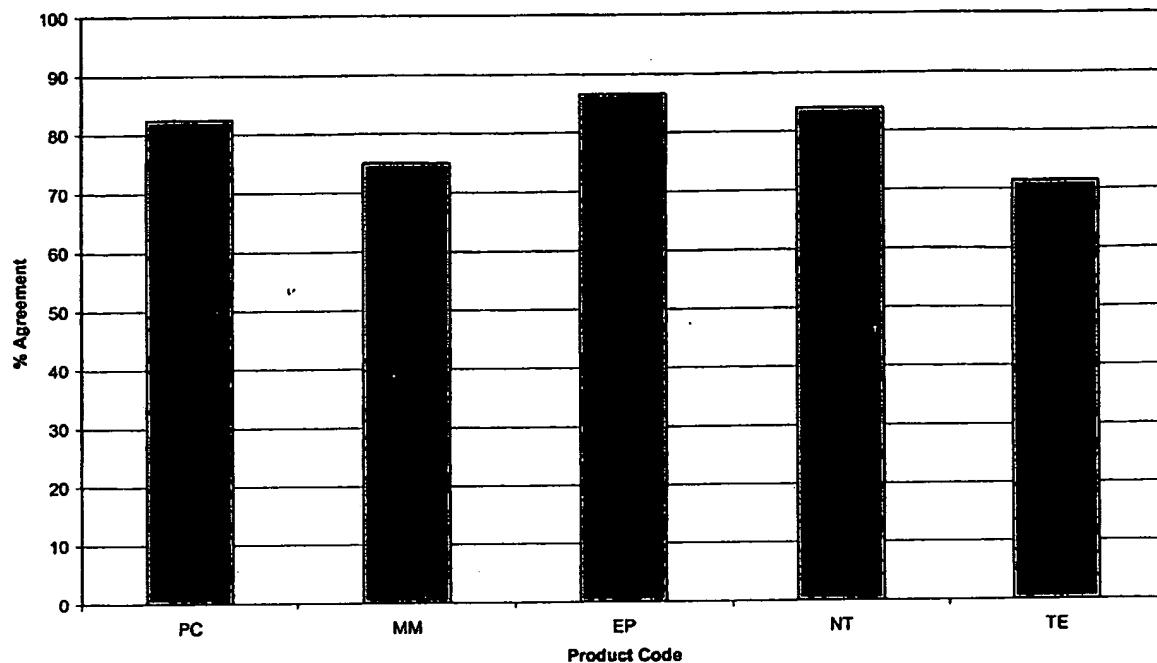


The graph summarizes the responses to Question 12 on the questionnaire. The results show that the panelists agreed that product EP leaves hands feeling softer more than product TE. Using a paired t-test, the mean for product EP is significantly different than product TE, with a 95% confidence interval. The results further show that consumers agreed that product EP leaves hands feeling softer more than product MM. Using a paired t-test, the mean for product EP is significantly different than product MM, with an 80% confidence interval. However, using a paired t-test, the results show that there is no statistically significant difference between the softer after feel consumers experience after using products EP, PC, or NT.

Exhibit M

Smoother After Feel

Question 13: After using this product, my hands feel smoother.

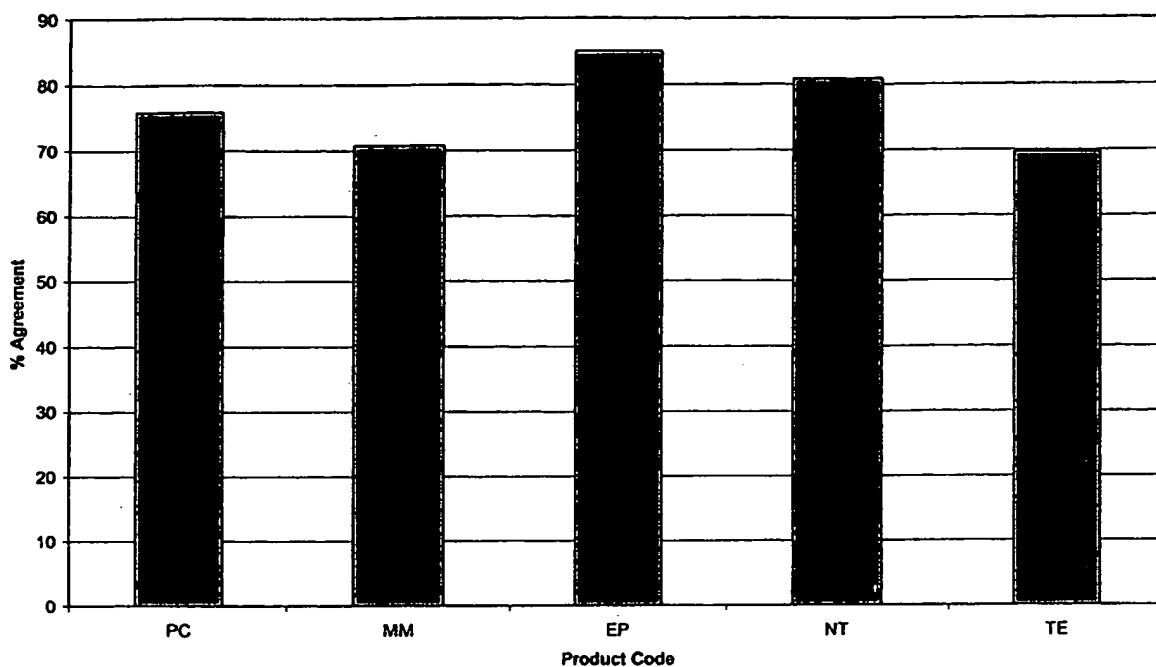


The graph summarizes the responses to Question 13 on the questionnaire. The results show that the panelists agreed that product EP leaves hands feeling smoother more than products MM and TE. Using a paired t-test, the mean for product EP is significantly different than products MM and TE, with a 95% confidence interval. However, using a paired t-test, the results show that there is no statistically significant difference between the smooth after feel consumers experience after using products EP, PC, or NT.

Exhibit N

Immediate After Feel

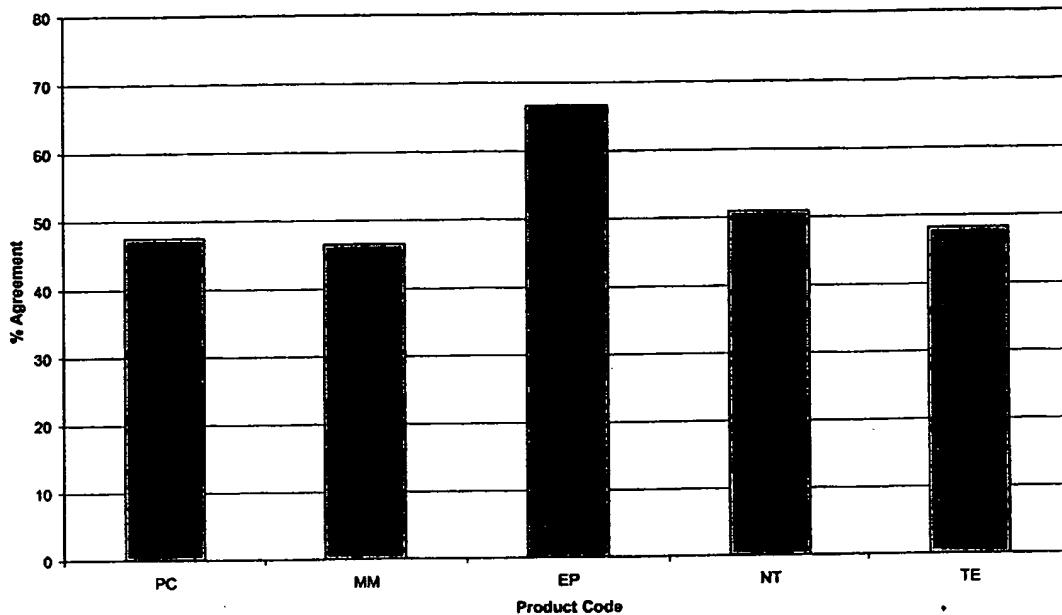
Question 14: After using this product, my hands feel immediately smoother and softer.



The graph summarizes the responses to Question 14 on the questionnaire. The results show that the panelists agreed that product EP leaves hands immediately feeling smoother and softer more than products MM and TE. Using a paired t-test, the mean for product EP is significantly different than products MM and TE, with a 95% confidence interval. The results further show that the panelists agreed that product EP leaves hands immediately feeling smoother and softer more than product PC. Using a paired t-test, the mean for product EP is significantly different than product PC, with an 80% confidence interval. However, using a paired t-test, the results show that there is no statistically significant difference between the immediate feeling of smoothness and softness consumers experience after using products EP and NT. As previously noted, these two formulas were most closely related, the sole difference being that NT does not include the surfactant.

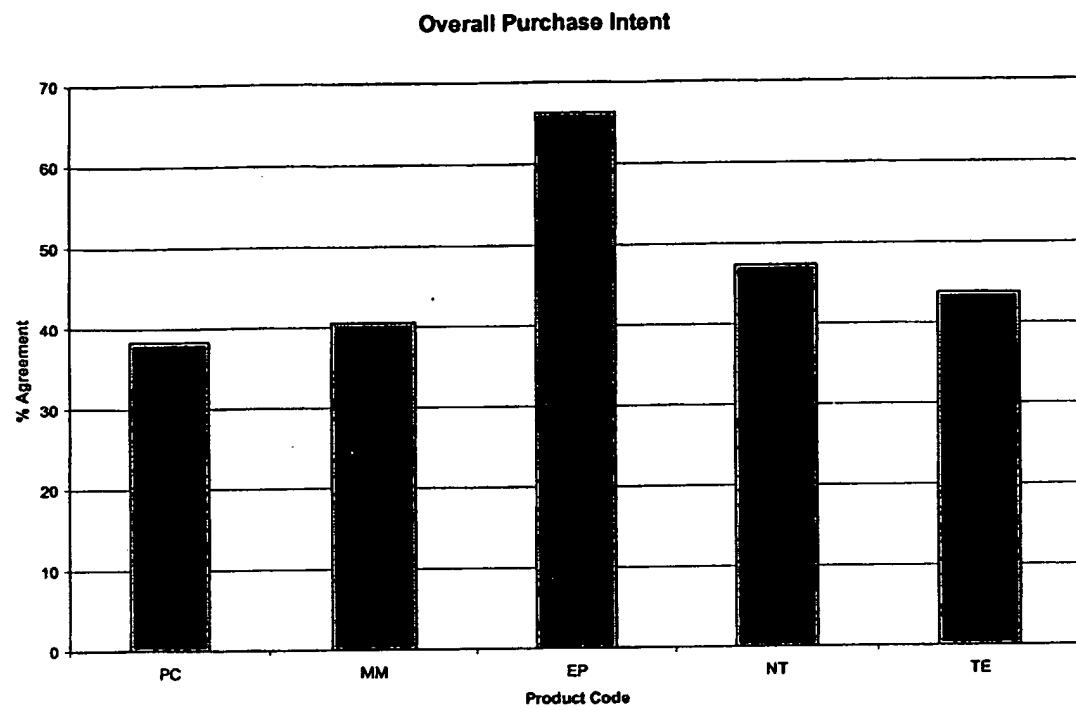
Exhibit O

Better than Current
Question 15: Overall, I feel this product is better than my current hand product.



The graph summarizes the responses to Question 15 on the questionnaire. The results show that consumers feel product EP is better than their current product to a greater extent than all other products tested. Using a paired t-test, the mean for product EP is significantly different than products PC, MM, NT, and TE with a 95% confidence interval.

Exhibit P



The graph summarizes the responses to Question 16 on the questionnaire. The results show that more consumers would definitely purchase product EP than products PC, MM, NT, or TE. Using a paired t-test, the mean for product EP is significantly different than the other four products, with a 95% confidence interval.

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

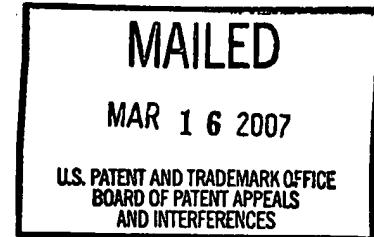
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES H. McLAUGHLIN

Appeal 2006-3210
Application 09/964,143
Technology Center 1600

ON BRIEF



Before ADAMS, GRIMES, and LINCK, *Administrative Patent Judges*.

LINCK, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal from final rejection under 35 U.S.C. § 103(a) of all pending claims in the above-identified application, filed September 25, 2001.¹ We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

STATEMENT OF THE CASE

“The invention relates to an improvement in topical compositions for conditioning the skin . . . in the form of a substantially stable, extrudable paste or cream.” Specification (“Spec.”) 1. The compositions are in the

¹ The real party in interest is Crabtree & Evelyn, Ltd.

form of “a stable suspension of a mildly abrasive, particulate matter . . . effective to cleanse the skin . . . in addition to conditioning the skin.” *Id.*

According to the specification, compositions “for delivering hydrophobic skin benefit agents to the skin are known in the prior art. . . . Further, it is known to prepare [such compositions] in the form of emulsions or creams.” *Id.* Finally, “exfoliating compositions also are well known in the art.” *Id.* at 2. However, again according to the specification, “there still exists a need for stable compositions containing emollient material in the form of an extrudable paste or cream that are suitable for cleansing the skin and depositing a film . . . such that the skin has a non-greasy after-feel.”

Id. at 3.

Claims 3, 6, 7, 33, and 39-43 stand rejected under 35 U.S.C. § 103(a). “For each ground of rejection . . . , the claims rejected as a group shall stand or fall together.” Appeal Brief Under 37 CFR § 41.37(c) (dated Nov. 11, 2005) (“Br.”) 9.

The Examiner has rejected claims 3, 6, 33, and 40-43 based on U.S. Patent Nos. 6,042,815 (issued March 28, 2000) (“Kellner”) and 5,360,824 (issued Nov. 1, 1994) (“Barker”). Representative claim 40 reads:

40. A cosmetic exfoliating composition for use in cleansing and conditioning the skin of the hands, face, heels/knees/elbows and/or the body of a human being in the form of a[n] extrudable paste or cream that comprises:

(A) 40% to 60% by weight of emollient material consisting of a major proportion of emollient oil selected from the group consisting of animal oils, vegetable or plant derived oils, hydrocarbon oils, silicone oils and mixtures thereof and a minor proportion of an emollient hydrophobic compound selected from the group consisting of C12 –C18 fatty acids,

C12 - C18 fatty alcohols, C12 - C18 fatty esters, Shea butter, lanolin or a lanolin derivative, lecithin and mixtures thereof;

(B) a water-soluble surface active agent selected from the group consisting of anionic, nonionic, amphoteric, zwitterionic and cationic surfactants in a proportion selected from the range of 0.4% to 8.0% by weight, said proportion being effective to deposit a skin softening amount of emollient material on the treated skin without a greasy after-feel when said composition is rinsed from skin with water and the skin is dried;

(C) a calcium or magnesium salt of a C14 - C18 monocarboxylic acid wherein the weight ratio of emollient material to said monocarboxylic acid salt is in the range of 4:1 to 2.5:1, said proportion being adequate to produce a composition in the form of a stable, extrudable paste or cream;

(D) 10% to 45% by weight of a non-irritating, mildly abrasive, skin compatible, particulate material that is effective to cleanse and lubricate the skin without abrading the skin, said particulate material including a mixture of 8% to 20% by weight of a starch material selected from the group consisting of starches and enzyme or acid hydrolyzed starches with another particulate material selected from the group consisting of sodium chloride, pumice, talc and vegetable flour; and

(E) 0% to 10% by weight of water;

said composition being effective to cleanse, soften, smooth and moisturize the skin when the composition is applied to and massaged into the skin, thereafter rinsed from the skin with tepid water and the skin is dried.

The Examiner has rejected claims 7 and 39 based on Kellner, Barker, and U.S. Patent No. 6,153,208 ("McAtee"). Claim 39 is representative of this group and reads:

39. A composition according to Claim 40 wherein the emollient oil is macadamia seed oil, the water-soluble surface active agent is sodium cocoyl N-methyl taurate, the water-insoluble monocarboxylic acid salt is calcium stearate and the particulate material is a mixture of starch and sodium chloride and the resultant composition is substantially anhydrous.

ISSUES ON APPEAL

Claim 40

Relevant to the patentability of claim 40, the Examiner concluded "it would have been *prima facie* obvious . . . to make a composition with the particular percentages of each and every component[]" in claim 40 because Kellner discloses each component in ranges that overlap or encompass those claimed. Final Office Action (mailed 3/23/04) ("FOA") 3; Examiner's Answer ("Answer") 3-4. Further, according to the Examiner, the "employment" of the claimed ingredients would have been "obvious since they are known to be useful" and would simply involve "a selection from amongst equally suitable material" disclosed in Kellner. FOA 3; Answer 4.

Appellant contends his claimed invention would not have been obvious over Kellner and Barker because: (1) the sodium, magnesium, and calcium salts of stearic acid are not equivalents in Kellner's cosmetic stick compositions, as sodium stearate is soluble in water and calcium and magnesium stearate are not (Br. 11-14 & Affidavits Under 37 CFR § 1.132);

- (2) "Kellner's compositions are in form of solid or stick . . . and Appellant's compositions are in form of cream or extrudable paste" (*id.* at 9-10);
- (3) "Kellner's compositions are used to deliver pigments to the skin . . . and, optionally, to moisturize the skin . . . ; whereas Appellant's compositions are effective to cleanse the skin . . . and condition the skin by depositing fatty matter on the skin" (*id.* at 10); (4) "Kellner's concentration of surfactant is controlled to facilitate wetting of pigments being delivered to the skin . . . ; whereas Appellant's surfactant concentration is controlled to deliver a controlled amount of emollient material to the skin" (*id.*); and, finally,
- (5) Kellner's "stick compositions . . . contain 'appreciable amounts of water' . . . ; whereas Appellant's compositions contain 0% to 10% by weight water."

Id.

With respect to claim 40, given the record before us, we frame the issue to be decided as follows:

Would Appellant's claimed "cosmetic exfoliating composition" comprising recited ranges of (A) an emollient oil and emollient hydrophobic compound, (B) a water-soluble surfactant, (C) a calcium or magnesium salt of a C14 – C18 monocarboxylic acid, and (D) a particulate material have been obvious in view of the teachings of Kellner and Barker?

Claim 39

Relevant to claim 39, the Examiner concluded that the teachings of Kellner, combined with those of Barker (disclosing an anhydrous cream containing sodium chloride) and of McAtee (disclosing use of sodium cocoyl methyl taurate) would have rendered claim 39 obvious to the skilled artisan.

Appellant contends Barker and McAtee do not address the deficiencies of Kellner (noted *supra* at pp. 4-5). Appellant further contends McAtee is non-analogous art. Br. 18.

Thus, with respect to claim 39, in addition to the issue identified above with regard to claim 40, the disputed issue before us is:

Did the Examiner appropriately combine McAtee with Kellner and Barker, or is McAtee non-analogous art?

FINDINGS OF FACT

Claim 40

Kellner discloses each component of claim 40 in ranges that encompass or overlap those claimed: (A) 0.1-30% “emollient oil,” 0.01-20% “oil phase gelling agent,” e.g., a fatty acid such as lanolin; (B) 0.1-20% “surfactant;” (C) 0.1-20% “carboxylated salt gelling agent,” e.g., calcium or magnesium stearate;² (D) 0.1-50% “particulates,” e.g., starch and talc; and (E) 5-95% water. Col. 1, l. 59 to col. 2, l. 3. See also col. 9 (emollient oils); col. 2 (oil phase gelling agents); cols. 11 & 12 (surfactants); col. 2, ll. 23-63 (carboxylated salt gelling agents); and col. 19 (particulates). Appellants do not appear to dispute this finding. *See Br. & Reply passim.*

Appellant conducted several experiments to show calcium stearate is not “equivalent” to sodium stearate. *See Appellant’s two affidavits passim.*

² The claimed ratio of emollient material to calcium or magnesium salt is 4:1 to 2.5:1. We calculate 40% and 60% “emollient material” would require 10 to 16% and 15 to 24% “calcium or magnesium salt,” respectively, substantially overlapping with Kellner’s disclosed 0.1 to 20% carboxylated salt.

More specifically, he substituted calcium stearate for sodium stearate in Kellner's Examples 1 and 2B and found he did not obtain a solid stick as he did with sodium stearate. Affidavit Two Under 37 CFR § 1.132 ("Aff. Two"), ¶¶ 4 & 5.

Appellant's experiments were not designed with Kellner's broader teachings in mind and did not consider the skill of the artisan in this field—skill that would apply routine experimentation to adjust the other components when a water-insoluble carboxylated salt, such as calcium stearate, is used in place of or along with a water-soluble salt such as sodium stearate. Further, only a single amount of calcium stearate was used rather than several amounts spanning Appellant's claimed range. Thus, we find the proffered showing is not commensurate in scope either with the claimed invention or with the prior art teachings.

The following findings respond to Appellant's five contentions (*see supra* at p. 5):

1. Contrary to Appellant's first contention, Kellner does not teach sodium, calcium and magnesium stearate are "equivalent." Instead Kellner teaches that the three salts are suitable for use in his compositions. Col. 2, ll. 57-60. ("Examples of gelling agents that may be used . . . are sodium, potassium, aluminum, magnesium, or calcium salts of stearic, behenic, caprylic, tallowic, tallic, cocoic, or lauric acids"). Neither does Kellner teach nor suggest that calcium and magnesium stearates are water soluble. In fact, Kellner teaches his "carboxylated salt gelling agent" can be "water soluble *or* water insoluble," although he prefers a water-soluble one formed with a metallic cation such as sodium. Col. 2, ll. 35-39 (emphasis added).

Consistent with these teachings, in Example 1, Kellner includes both water insoluble aluminum stearate and water-soluble sodium stearate. Col. 22, ll. 17-45. Thus, as the Examiner found, Kellner teaches calcium and magnesium stearate are suitable for use in the disclosed invention.

2. With respect to the form of the composition, while Kellner primarily teaches "sticks or solids," use of "cream forms" is expressly disclosed "to deliver certain consumer benefits." Col. 2, l. 17. Furthermore, as Appellant admits (Br. 17), Barker discloses a paste, one of Appellant's claimed forms. Finally, one of ordinary skill working in this art would have been aware of such alternative formulations. *See, e.g.*, Spec. 1 (compositions "in the form of . . . creams" are known).

3. While Kellner's particulates can be pigments, they are not so limited. Col. 19, l. 36 to col. 20, l. 25. As Appellant recognizes, one "object" of Kellner's is a formulation "capable of moisturizing the skin." Col. 1, ll. 39-41. Further, Kellner expressly includes particulates recited in Appellant's claim 40, i.e., "starch" and "talc." Col. 19, l. 52. We find such components would "cleanse the skin . . . and condition the skin by depositing fatty matter" (Br. 10), just as Appellant's starch and talc would do. This would be particularly true, given the substantial overlap of the claimed and disclosed ranges, i.e., 10 to 45% and 0.1 to 50%, respectively.

4. Kellner discloses using surfactants "to wet the pigments and assist in stabilizing the emulsion compositions" in a range of "0.001-20%, preferably 0.01-10%, more preferably 0.05-8% by weight Suitable surfactants . . . include nonionic, amphoteric, zwitterionic, and cationic surfactants." Col. 11, l. 65 to col. 12, l. 4. Appellant claims a surfactant

“selected from the group consisting of anionic, nonionic, amphoteric, zwitterionic and cationic surfactants in a proportion selected from the range 0.4% to 8% by weight.” See claim 40. Given the significant overlap of these surfactants, we find Kellner’s surfactants would be “effective to deposit a skin softening amount of emollient material” as claimed.

5. With respect to the amount of water disclosed in Kellner, Kellner expressly teaches a range of water between 5% and 95%, overlapping with Appellant’s claimed range of 0% to 10%. Col. 2, l. 3. While *one* of Kellner’s objects is to “formulate stable, pigmented cosmetic sticks and solids containing appreciable levels of water” (col. 1, ll. 43-45), the reference’s teachings and other objectives go much further. Thus, Kellner teaches the skilled artisan to vary the amount of water between 5% and 95%, depending upon the type of formulation the artisan is seeking.

Claim 39

In addition to the above findings, the following findings are relevant to the patentability of claim 39.

McAtee relates to “a substantially dry, disposable, personal cleansing article useful for both cleansing and conditioning the skin.” Col. 1, ll. 20-22. Objects of McAtee’s invention include “to provide methods of cleansing and consistently conditioning the skin” (col. 4, ll. 13-15) and “to provide methods of consistently providing deposition of conditioning agents and other active ingredients” (col. 4, ll. 17-19). Kellner’s objects include providing “compositions which are capable of moisturizing the skin.” Col. 1, ll. 39-41. Barker provides “an improved means of cleansing the skin and reducing skin wrinkles without irritating the skin or clogging its pores.”

Col. 1, ll. 44-47. Barker recognizes moisturizing is necessary to prevent wrinkles. Col. 1, ll. 15-16 (“Wrinkling occurs as moisture and skin oils are removed”).

All of the components recited in claim 39 are expressly disclosed in Kellner, Barker, and/or McAtee, except “macadamia seed oil.”

McAtee discloses “preferred anionic lathering surfactants” (col. 20, ll. 1-2), including Appellant’s claimed “sodium cocoyl methyl taurate.” Col. 20, ll. 10-11.

Barker discloses a “skin-cleansing and wrinkle-reducing cream [which] employs an oleaginous base [and] a plurality of water-soluble, skin-abrading granules or particles which are of a material which does not irritate the skin.” Col. 1, ll. 52-61. Barker’s “water-soluble, skin abrading . . . particulates” include Appellant’s claimed “sodium chloride.” Col. 2, ll. 59-64. “Preferably, the base is an edible oil and/or petroleum jelly.” Col. 1, ll. 61-62. The edible oil is “most preferably vegetable oil such as sunflower seed oil, peanut oil, corn oil, canola oil or the like.” Col. 2, ll. 33-36. Barker’s formulations are anhydrous. *See, e.g.*, Examples I & II (col. 3, l. 41 to col. 4, l. 9).

Similar to Barker, Kellner discloses vegetable oil, such as “coconut oil, cottonseed oil, linseed oil . . . , olive oil, palm oil . . . , rapeseed oil, soybean oil, sunflower seed oil, walnut oil, and the like.” Col. 10, ll. 48-55.

The skilled artisan would have recognized Appellant’s claimed macadamia seed oil to be a member of the group of oils contemplated by Barker’s and Kellner’s language “and the like.” *See, e.g.*, U.S. Patent No. 6,033,647 (col. 5, ll. 19-25) equating such oils (“oils of plant” useful as

“cosmetic oils” include coconut oil, macadamia oil . . . , soybean oil . . . , corn oil, rapeseed oil, sunflower oil, cottonseed oil, [and] olive oil”).

PRINCIPLES OF LAW

Claim Interpretation

“‘Comprising’ is a term of art used in claim language which means that the named elements are essential, but other elements may be added and still form a construct within the scope of the claims.” *Genentech, Inc. Chiron Corp.*, 112 F.3d 495, 501, 42 USPQ2d 1608, 1613 (Fed. Cir. 1997) (quoting *In re Baxter*, 656 F.2d at 686, 210 USPQ at 802).

“A long line of cases confirms that one cannot establish novelty by claiming a known material by its properties.” *In re Crish*, 393 F.3d 1253, 1258, 73 USPQ2d 1364, 1368 (Fed. Cir. 2004). When “the prior art evidence reasonably allows the PTO to conclude that a claimed feature is present in the prior art, the evidence ‘compels such a conclusion if the applicant produces no evidence or argument to rebut it.’ *Spada*, 911 F.2d at 708 n. 3.” *Crish*, 393 F.3d at 1259, 73 USPQ2d at 1369. The court in *Crish* was addressing a § 102 issue. However, “the inherent teaching of a prior art reference . . . arises both in the context of anticipation and obviousness.” *In re Napier*, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995).

Obviousness Under 35 U.S.C. § 103(a)

“A claimed invention is unpatentable if the differences between it and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the pertinent art.” *In re Kahn*, 441 F.3d 977, 985, 78 USPQ2d 1329, 1334

(Fed. Cir. 2006). “Precedent requires that to find a combination obvious there must be some teaching, suggestion, or motivation in the prior art to select the teachings of separate references and combine them to produce the claimed combination.” *In re Johnston*, 435 F.3d 1381, 1384, 77 USPQ2d 1788, 1790 (Fed. Cir. 2006). However, an “explicit teaching that identifies and selects elements from different sources and states that they should be combined in the same way as the invention at issue, is rarely found in the prior art. As precedent illustrates, many factors are relevant . . . such as the field of the specific invention, the subject matter of the references, the extent to which they are in the same or related fields of technology, the nature of the advance made by the applicant, and the maturity and congestion of the field.” *Id.* at 1385, 77 USPQ2d at 1790.

“Obviousness does not require absolute predictability. . . . Only a reasonable expectation that the beneficial result will be achieved is necessary to show obviousness.” *In re Merck & Co.*, 800 F.2d 1091, 1097, 231 USPQ 375, 379 (Fed. Cir. 1986).

The fact that a specific embodiment “is taught to be preferred is not controlling, since all disclosures of the prior art, including unpreferred embodiments, must be considered.” *In re Lamberti*, 545 F.2d 747, 749, 192 USPQ 278, 280 (CCPA 1976), *quoted with approval in Merck & Co. v. Biocraft Labs*, 874 F.2d 804, 807, 10 USPQ2d 1843, 1846 (Fed. Cir. 1989). See also *In re Inland Steel Co.*, 265 F.3d 1354, 1360-61, 60 USPQ2d 1396, 1402 (Fed. Cir. 2001).

The “existence of overlapping or encompassing ranges shifts the burden to the applicant to show that his invention would not have been

obvious.” *In re Peterson*, 315 F.3d 1325, 1330, 65 USPQ2d 1379, 1383 (Fed. Cir. 2003). *See also In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Rebuttal Evidence

In challenging the suitability of a teaching, it must be shown that “one of ordinary skill in the art, making adaptions within the skill of the art, could not have successfully carried out” the disclosed process. *Lamberti*, 545 F.2d at 750 n.2, 192 USPQ at 281 n.2.

Analogous Art

“The analogous-art test requires that the Board show that a reference is either in the field of the applicant’s endeavor or is reasonably pertinent to the problem with which the inventor was concerned . . .” *Kahn*, 441 F.3d at 986, 78 USPQ2d at 1335-36.

ANALYSIS

Claim 40

Considering the factors relevant to an obviousness determination and the fact-findings above, we conclude the Examiner has made a *prima facie* case that it would have been obvious to one of ordinary skill in the art to make Appellant’s claimed “cosmetic exfoliating composition” in view of the cited prior art.

Due to Appellant’s use of “comprising” language, his claims do not exclude additional components, such as those disclosed in Kellner. Thus, in view of Kellner’s teachings, it would have been obvious to either substitute or additionally include a water-insoluble stearate, i.e., calcium or magnesium stearate, in Kellner’s compositions and use routine experimentation to adjust

the remaining components to obtain a suitable form of cosmetic. In this regard, we note Appellant claims broad ranges of components which would also require use of routine skill in the art to arrive at a suitable formulation.

We recognize Appellant's claims contain such functional language as "for use in cleansing and conditioning" and "said proportion being effective to deposit a skin softening amount of emollient material . . . without a greasy after-feel." See claim 40. However, without some showing that the closest prior art compositions would not achieve these sought-after properties (or Appellant's claimed composition would yield unexpected results), we conclude these claimed properties would be present in the cited prior art, or prior art combination. *

Appellant has attempted to show Kellner would be inoperative if calcium or magnesium stearate is used in Kellner's formulations. We conclude Appellant's showing is not sufficient to establish inoperability and does not address the reference's broader teachings. Kellner discloses the suitability of these two stearates but does not state they are 1:1 equivalent with water-soluble sodium stearate. Thus, the skilled artisan following Kellner's suggestion to use calcium or magnesium stearate, alone or in combination with a water-soluble stearate, would have used routine experimentation and applied the skill in the art to make a suitable cosmetic formulation containing one of these stearates. The fact that calcium stearate cannot be directly substituted for sodium stearate without any application of skill or variation of other ingredients does not establish inoperability.

Further, Kellner's preference for water-soluble sodium stearate does not negate the reference's teachings regarding calcium or magnesium

stearate. A skilled artisan in the cosmetic field would have recognized all Kellner's teachings and applied them accordingly to obtain useful cosmetic compositions.

Finally, Appellant has not attempted to show unexpected results due to his claimed ranges. Thus, the Examiner's *prima facie* case, based on Kellner's overlapping or encompassing ranges has not been rebutted.

Claim 39

Considering our above fact-findings and relevant caselaw, we conclude McAtee is analogous art. In fact, McAtee is both in Appellant's field of endeavor, i.e., the cosmetic field, and is reasonably pertinent to the problem with which Appellant is concerned, i.e., cleansing and conditioning, or moisturizing, the skin. Thus, the Examiner appropriately relied upon McAtee to supplement the disclosures of Kellner and Barker.

CONCLUSIONS

We affirm the Examiner's § 103(a) rejection of claim 40 in view of Kellner and Barker. These references disclose all the components of claim 40 in ranges that overlap or encompass the claimed ranges.

We affirm the Examiner's § 103(a) rejection of claim 39 in view of Kellner, Barker and McAtee. These references are appropriately combined and disclose or suggest all the elements of claim 39.

Lacking any argument regarding their separate patentability, we also affirm the rejection of claims 3, 6, 7, 33, and 41-43 pursuant to 37 CFR § 41.37(c)(1)(vii).

Appeal 2006-3210
Application 09/964,143

No time period for taking any subsequent action in connection with
this appeal may be extended under 37 CFR § 1.136(a)(1)(iv) (2006).

AFFIRMED

Donald E. Adams)
Administrative Patent Judge)
)
)
)
) BOARD OF PATENT
Eric Grimes)
Administrative Patent Judge) APPEALS AND
)
) INTERFERENCES
)
Nancy J. Linck)
Administrative Patent Judge)

Appeal 2006-3210
Application 09/964,143

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The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

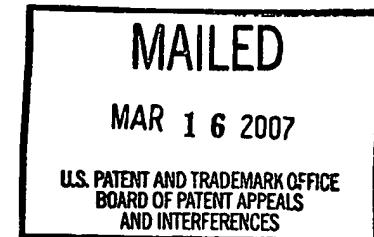
UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte JAMES H. McLAUGHLIN

Appeal 2006-3210
Application 09/964,143
Technology Center 1600

ON BRIEF



Before ADAMS, GRIMES, and LINCK, *Administrative Patent Judges*.

LINCK, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal from final rejection under 35 U.S.C. § 103(a) of all pending claims in the above-identified application, filed September 25, 2001.¹ We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

STATEMENT OF THE CASE

“The invention relates to an improvement in topical compositions for conditioning the skin . . . in the form of a substantially stable, extrudable paste or cream.” Specification (“Spec.”) 1. The compositions are in the

¹ The real party in interest is Crabtree & Evelyn, Ltd.

form of "a stable suspension of a mildly abrasive, particulate matter . . . effective to cleanse the skin . . . in addition to conditioning the skin." *Id.*

According to the specification, compositions "for delivering hydrophobic skin benefit agents to the skin are known in the prior art. . . . Further, it is known to prepare [such compositions] in the form of emulsions or creams." *Id.* Finally, "exfoliating compositions also are well known in the art." *Id.* at 2. However, again according to the specification, "there still exists a need for stable compositions containing emollient material in the form of an extrudable paste or cream that are suitable for cleansing the skin and depositing a film . . . such that the skin has a non-greasy after-feel."

Id. at 3.

Claims 3, 6, 7, 33, and 39-43 stand rejected under 35 U.S.C. § 103(a). "For each ground of rejection . . . , the claims rejected as a group shall stand or fall together." Appeal Brief Under 37 CFR § 41.37(c) (dated Nov. 11, 2005) ("Br.") 9.

The Examiner has rejected claims 3, 6, 33, and 40-43 based on U.S. Patent Nos. 6,042,815 (issued March 28, 2000) ("Kellner") and 5,360,824 (issued Nov. 1, 1994) ("Barker"). Representative claim 40 reads:

40. A cosmetic exfoliating composition for use in cleansing and conditioning the skin of the hands, face, heels/knees/elbows and/or the body of a human being in the form of a[n] extrudable paste or cream that comprises:

(A) 40% to 60% by weight of emollient material consisting of a major proportion of emollient oil selected from the group consisting of animal oils, vegetable or plant derived oils, hydrocarbon oils, silicone oils and mixtures thereof and a minor proportion of an emollient hydrophobic compound selected from the group consisting of C12 -C18 fatty acids,

C12 - C18 fatty alcohols, C12 - C18 fatty esters, Shea butter, lanolin or a lanolin derivative, lecithin and mixtures thereof;

(B) a water-soluble surface active agent selected from the group consisting of anionic, nonionic, amphoteric, zwitterionic and cationic surfactants in a proportion selected from the range of 0.4% to 8.0% by weight, said proportion being effective to deposit a skin softening amount of emollient material on the treated skin without a greasy after-feel when said composition is rinsed from skin with water and the skin is dried;

(C) a calcium or magnesium salt of a C14 - C18 monocarboxylic acid wherein the weight ratio of emollient material to said monocarboxylic acid salt is in the range of 4:1 to 2.5:1, said proportion being adequate to produce a composition in the form of a stable, extrudable paste or cream;

(D) 10% to 45% by weight of a non-irritating, mildly abrasive, skin compatible, particulate material that is effective to cleanse and lubricate the skin without abrading the skin, said particulate material including a mixture of 8% to 20% by weight of a starch material selected from the group consisting of starches and enzyme or acid hydrolyzed starches with another particulate material selected from the group consisting of sodium chloride, pumice, talc and vegetable flour; and

(E) 0% to 10% by weight of water;

said composition being effective to cleanse, soften, smooth and moisturize the skin when the composition is applied to and massaged into the skin, thereafter rinsed from the skin with tepid water and the skin is dried.

The Examiner has rejected claims 7 and 39 based on Kellner, Barker, and U.S. Patent No. 6,153,208 ("McAtee"). Claim 39 is representative of this group and reads:

39. A composition according to Claim 40 wherein the emollient oil is macadamia seed oil, the water-soluble surface active agent is sodium cocoyl N-methyl taurate, the water-insoluble monocarboxylic acid salt is calcium stearate and the particulate material is a mixture of starch and sodium chloride and the resultant composition is substantially anhydrous.

ISSUES ON APPEAL

Claim 40

Relevant to the patentability of claim 40, the Examiner concluded "it would have been *prima facie* obvious . . . to make a composition with the particular percentages of each and every component[]" in claim 40 because Kellner discloses each component in ranges that overlap or encompass those claimed. Final Office Action (mailed 3/23/04) ("FOA") 3; Examiner's Answer ("Answer") 3-4. Further, according to the Examiner, the "employment" of the claimed ingredients would have been "obvious since they are known to be useful" and would simply involve "a selection from amongst equally suitable material" disclosed in Kellner. FOA 3; Answer 4.

Appellant contends his claimed invention would not have been obvious over Kellner and Barker because: (1) the sodium, magnesium, and calcium salts of stearic acid are not equivalents in Kellner's cosmetic stick compositions, as sodium stearate is soluble in water and calcium and magnesium stearate are not (Br. 11-14 & Affidavits Under 37 CFR § 1.132);

- (2) "Kellner's compositions are in form of solid or stick . . . and Appellant's compositions are in form of cream or extrudable paste" (*id.* at 9-10);
- (3) "Kellner's compositions are used to deliver pigments to the skin . . . and, optionally, to moisturize the skin . . .; whereas Appellant's compositions are effective to cleanse the skin . . . and condition the skin by depositing fatty matter on the skin" (*id.* at 10);
- (4) "Kellner's concentration of surfactant is controlled to facilitate wetting of pigments being delivered to the skin . . .; whereas Appellant's surfactant concentration is controlled to deliver a controlled amount of emollient material to the skin" (*id.*); and, finally,
- (5) Kellner's "stick compositions . . . contain 'appreciable amounts of water' . . .; whereas Appellant's compositions contain 0% to 10% by weight water."

Id.

With respect to claim 40, given the record before us, we frame the issue to be decided as follows:

Would Appellant's claimed "cosmetic exfoliating composition" comprising recited ranges of (A) an emollient oil and emollient hydrophobic compound, (B) a water-soluble surfactant, (C) a calcium or magnesium salt of a C14 – C18 monocarboxylic acid, and (D) a particulate material have been obvious in view of the teachings of Kellner and Barker?

Claim 39

Relevant to claim 39, the Examiner concluded that the teachings of Kellner, combined with those of Barker (disclosing an anhydrous cream containing sodium chloride) and of McAtee (disclosing use of sodium cocoyl methyl taurate) would have rendered claim 39 obvious to the skilled artisan.

Appellant contends Barker and McAtee do not address the deficiencies of Kellner (noted *supra* at pp. 4-5). Appellant further contends McAtee is non-analogous art. Br. 18.

Thus, with respect to claim 39, in addition to the issue identified above with regard to claim 40, the disputed issue before us is:

Did the Examiner appropriately combine McAtee with Kellner and Barker, or is McAtee non-analogous art?

FINDINGS OF FACT

Claim 40

Kellner discloses each component of claim 40 in ranges that encompass or overlap those claimed: (A) 0.1-30% “emollient oil,” 0.01-20% “oil phase gelling agent,” e.g., a fatty acid such as lanolin; (B) 0.1-20% “surfactant;” (C) 0.1-20% “carboxylated salt gelling agent,” e.g., calcium or magnesium stearate;² (D) 0.1-50% “particulates,” e.g., starch and talc; and (E) 5-95% water. Col. 1, l. 59 to col. 2, l. 3. See also col. 9 (emollient oils); col. 2 (oil phase gelling agents); cols. 11 & 12 (surfactants); col. 2, ll. 23-63 (carboxylated salt gelling agents); and col. 19 (particulates). Appellants do not appear to dispute this finding. *See Br. & Reply passim.*

Appellant conducted several experiments to show calcium stearate is not “equivalent” to sodium stearate. *See Appellant’s two affidavits passim.*

² The claimed ratio of emollient material to calcium or magnesium salt is 4:1 to 2.5:1. We calculate 40% and 60% “emollient material” would require 10 to 16% and 15 to 24% “calcium or magnesium salt,” respectively, substantially overlapping with Kellner’s disclosed 0.1 to 20% carboxylated salt.

More specifically, he substituted calcium stearate for sodium stearate in Kellner's Examples 1 and 2B and found he did not obtain a solid stick as he did with sodium stearate. Affidavit Two Under 37 CFR § 1.132 ("Aff. Two"), ¶¶ 4 & 5.

Appellant's experiments were not designed with Kellner's broader teachings in mind and did not consider the skill of the artisan in this field—skill that would apply routine experimentation to adjust the other components when a water-insoluble carboxylated salt, such as calcium stearate, is used in place of or along with a water-soluble salt such as sodium stearate. Further, only a single amount of calcium stearate was used rather than several amounts spanning Appellant's claimed range. Thus, we find the proffered showing is not commensurate in scope either with the claimed invention or with the prior art teachings.

The following findings respond to Appellant's five contentions (*see supra* at p. 5):

1. Contrary to Appellant's first contention, Kellner does not teach sodium, calcium and magnesium stearate are "equivalent." Instead Kellner teaches that the three salts are suitable for use in his compositions. Col. 2, ll. 57-60. ("Examples of gelling agents that may be used . . . are sodium, potassium, aluminum, magnesium, or calcium salts of stearic, behenic, caprylic, tallowic, tallic, cocoic, or lauric acids"). Neither does Kellner teach nor suggest that calcium and magnesium stearates are water soluble. In fact, Kellner teaches his "carboxylated salt gelling agent" can be "water soluble *or* water insoluble," although he prefers a water-soluble one formed with a metallic cation such as sodium. Col. 2, ll. 35-39 (emphasis added).

Consistent with these teachings, in Example 1, Kellner includes both water insoluble aluminum stearate and water-soluble sodium stearate. Col. 22, ll. 17-45. Thus, as the Examiner found, Kellner teaches calcium and magnesium stearate are suitable for use in the disclosed invention.

2. With respect to the form of the composition, while Kellner primarily teaches "sticks or solids," use of "cream forms" is expressly disclosed "to deliver certain consumer benefits." Col. 2, l. 17. Furthermore, as Appellant admits (Br. 17), Barker discloses a paste, one of Appellant's claimed forms. Finally, one of ordinary skill working in this art would have been aware of such alternative formulations. *See, e.g.*, Spec. 1 (compositions "in the form of . . . creams" are known).

3. While Kellner's particulates can be pigments, they are not so limited. Col. 19, l. 36 to col. 20, l. 25. As Appellant recognizes, one "object" of Kellner's is a formulation "capable of moisturizing the skin." Col. 1, ll. 39-41. Further, Kellner expressly includes particulates recited in Appellant's claim 40, i.e., "starch" and "talc." Col. 19, l. 52. We find such components would "cleanse the skin . . . and condition the skin by depositing fatty matter" (Br. 10), just as Appellant's starch and talc would do. This would be particularly true, given the substantial overlap of the claimed and disclosed ranges, i.e., 10 to 45% and 0.1 to 50%, respectively.

4. Kellner discloses using surfactants "to wet the pigments and assist in stabilizing the emulsion compositions" in a range of "0.001-20%, preferably 0.01-10%, more preferably 0.05-8% by weight Suitable surfactants . . . include nonionic, amphoteric, zwitterionic, and cationic surfactants." Col. 11, l. 65 to col. 12, l. 4. Appellant claims a surfactant

"selected from the group consisting of anionic, nonionic, amphoteric, zwitterionic and cationic surfactants in a proportion selected from the range 0.4% to 8% by weight." See claim 40. Given the significant overlap of these surfactants, we find Kellner's surfactants would be "effective to deposit a skin softening amount of emollient material" as claimed.

5. With respect to the amount of water disclosed in Kellner, Kellner expressly teaches a range of water between 5% and 95%, overlapping with Appellant's claimed range of 0% to 10%. Col. 2, l. 3. While *one* of Kellner's objects is to "formulate stable, pigmented cosmetic sticks and solids containing appreciable levels of water" (col. 1, ll. 43-45), the reference's teachings and other objectives go much further. Thus, Kellner teaches the skilled artisan to vary the amount of water between 5% and 95%, depending upon the type of formulation the artisan is seeking.

Claim 39

In addition to the above findings, the following findings are relevant to the patentability of claim 39.

McAtee relates to "a substantially dry, disposable, personal cleansing article useful for both cleansing and conditioning the skin." Col. 1, ll. 20-22. Objects of McAtee's invention include "to provide methods of cleansing and consistently conditioning the skin" (col. 4, ll. 13-15) and "to provide methods of consistently providing deposition of conditioning agents and other active ingredients" (col. 4, ll. 17-19). Kellner's objects include providing "compositions which are capable of moisturizing the skin." Col. 1, ll. 39-41. Barker provides "an improved means of cleansing the skin and reducing skin wrinkles without irritating the skin or clogging its pores."

Col. 1, ll. 44-47. Barker recognizes moisturizing is necessary to prevent wrinkles. Col. 1, ll. 15-16 (“Wrinkling occurs as moisture and skin oils are removed”).

All of the components recited in claim 39 are expressly disclosed in Kellner, Barker, and/or McAtee, except “macadamia seed oil.”

McAtee discloses “preferred anionic lathering surfactants” (col. 20, ll. 1-2), including Appellant’s claimed “sodium cocoyl methyl taurate.” Col. 20, ll. 10-11.

Barker discloses a “skin-cleansing and wrinkle-reducing cream [which] employs an oleaginous base [and] a plurality of water-soluble, skin-abrading granules or particles which are of a material which does not irritate the skin.” Col. 1, ll. 52-61. Barker’s “water-soluble, skin abrading . . . particulates” include Appellant’s claimed “sodium chloride.” Col. 2, ll. 59-64. “Preferably, the base is an edible oil and/or petroleum jelly.” Col. 1, ll. 61-62. The edible oil is “most preferably vegetable oil such as sunflower seed oil, peanut oil, corn oil, canola oil or the like.” Col. 2, ll. 33-36. Barker’s formulations are anhydrous. *See, e.g.*, Examples I & II (col. 3, l. 41 to col. 4, l. 9).

Similar to Barker, Kellner discloses vegetable oil, such as “coconut oil, cottonseed oil, linseed oil . . . , olive oil, palm oil . . . , rapeseed oil, soybean oil, sunflower seed oil, walnut oil, and the like.” Col. 10, ll. 48-55.

The skilled artisan would have recognized Appellant’s claimed macadamia seed oil to be a member of the group of oils contemplated by Barker’s and Kellner’s language “and the like.” *See, e.g.*, U.S. Patent No. 6,033,647 (col. 5, ll. 19-25) equating such oils (“oils of plant” useful as

“cosmetic oils” include coconut oil, macadamia oil . . . , soybean oil . . . , corn oil, rapeseed oil, sunflower oil, cottonseed oil, [and] olive oil”).

PRINCIPLES OF LAW

Claim Interpretation

“‘Comprising’ is a term of art used in claim language which means that the named elements are essential, but other elements may be added and still form a construct within the scope of the claims.” *Genentech, Inc. Chiron Corp.*, 112 F.3d 495, 501, 42 USPQ2d 1608, 1613 (Fed. Cir. 1997) (quoting *In re Baxter*, 656 F.2d at 686, 210 USPQ at 802).

“A long line of cases confirms that one cannot establish novelty by claiming a known material by its properties.” *In re Crish*, 393 F.3d 1253, 1258, 73 USPQ2d 1364, 1368 (Fed. Cir. 2004). When “the prior art evidence reasonably allows the PTO to conclude that a claimed feature is present in the prior art, the evidence ‘compels such a conclusion if the applicant produces no evidence or argument to rebut it.’ *Spada*, 911 F.2d at 708 n. 3.” *Crish*, 393 F.3d at 1259, 73 USPQ2d at 1369. The court in *Crish* was addressing a § 102 issue. However, “the inherent teaching of a prior art reference . . . arises both in the context of anticipation and obviousness.” *In re Napier*, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995).

Obviousness Under 35 U.S.C. § 103(a)

“A claimed invention is unpatentable if the differences between it and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the pertinent art.” *In re Kahn*, 441 F.3d 977, 985, 78 USPQ2d 1329, 1334

(Fed. Cir. 2006). “Precedent requires that to find a combination obvious there must be some teaching, suggestion, or motivation in the prior art to select the teachings of separate references and combine them to produce the claimed combination.” *In re Johnston*, 435 F.3d 1381, 1384, 77 USPQ2d 1788, 1790 (Fed. Cir. 2006). However, an “explicit teaching that identifies and selects elements from different sources and states that they should be combined in the same way as the invention at issue, is rarely found in the prior art. As precedent illustrates, many factors are relevant . . . such as the field of the specific invention, the subject matter of the references, the extent to which they are in the same or related fields of technology, the nature of the advance made by the applicant, and the maturity and congestion of the field.” *Id.* at 1385, 77 USPQ2d at 1790.

“Obviousness does not require absolute predictability. . . . Only a reasonable expectation that the beneficial result will be achieved is necessary to show obviousness.” *In re Merck & Co.*, 800 F.2d 1091, 1097, 231 USPQ 375, 379 (Fed. Cir. 1986).

The fact that a specific embodiment “is taught to be preferred is not controlling, since all disclosures of the prior art, including unpreferred embodiments, must be considered.” *In re Lamberti*, 545 F.2d 747, 749, 192 USPQ 278, 280 (CCPA 1976), *quoted with approval in Merck & Co. v. Biocraft Labs*, 874 F.2d 804, 807, 10 USPQ2d 1843, 1846 (Fed. Cir. 1989). *See also In re Inland Steel Co.*, 265 F.3d 1354, 1360-61, 60 USPQ2d 1396, 1402 (Fed. Cir. 2001).

The “existence of overlapping or encompassing ranges shifts the burden to the applicant to show that his invention would not have been

obvious.” *In re Peterson*, 315 F.3d 1325, 1330, 65 USPQ2d 1379, 1383 (Fed. Cir. 2003). *See also In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Rebuttal Evidence

In challenging the suitability of a teaching, it must be shown that “one of ordinary skill in the art, making adaptions within the skill of the art, could not have successfully carried out” the disclosed process. *Lamberti*, 545 F.2d at 750 n.2, 192 USPQ at 281 n.2.

Analogous Art

“The analogous-art test requires that the Board show that a reference is either in the field of the applicant’s endeavor or is reasonably pertinent to the problem with which the inventor was concerned” *Kahn*, 441 F.3d at 986, 78 USPQ2d at 1335-36.

ANALYSIS

Claim 40

Considering the factors relevant to an obviousness determination and the fact-findings above, we conclude the Examiner has made a *prima facie* case that it would have been obvious to one of ordinary skill in the art to make Appellant’s claimed “cosmetic exfoliating composition” in view of the cited prior art.

Due to Appellant’s use of “comprising” language, his claims do not exclude additional components, such as those disclosed in Kellner. Thus, in view of Kellner’s teachings, it would have been obvious to either substitute or additionally include a water-insoluble stearate, i.e., calcium or magnesium stearate, in Kellner’s compositions and use routine experimentation to adjust

the remaining components to obtain a suitable form of cosmetic. In this regard, we note Appellant claims broad ranges of components which would also require use of routine skill in the art to arrive at a suitable formulation.

We recognize Appellant's claims contain such functional language as "for use in cleansing and conditioning" and "said proportion being effective to deposit a skin softening amount of emollient material . . . without a greasy after-feel." See claim 40. However, without some showing that the closest prior art compositions would not achieve these sought-after properties (or Appellant's claimed composition would yield unexpected results), we conclude these claimed properties would be present in the cited prior art, or prior art combination.

Appellant has attempted to show Kellner would be inoperative if calcium or magnesium stearate is used in Kellner's formulations. We conclude Appellant's showing is not sufficient to establish inoperability and does not address the reference's broader teachings. Kellner discloses the suitability of these two stearates but does not state they are 1:1 equivalent with water-soluble sodium stearate. Thus, the skilled artisan following Kellner's suggestion to use calcium or magnesium stearate, alone or in combination with a water-soluble stearate, would have used routine experimentation and applied the skill in the art to make a suitable cosmetic formulation containing one of these stearates. The fact that calcium stearate cannot be directly substituted for sodium stearate without any application of skill or variation of other ingredients does not establish inoperability.

Further, Kellner's preference for water-soluble sodium stearate does not negate the reference's teachings regarding calcium or magnesium

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Finally, Appellant has not attempted to show unexpected results due to his claimed ranges. Thus, the Examiner's *prima facie* case, based on Kellner's overlapping or encompassing ranges has not been rebutted.

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CONCLUSIONS

We affirm the Examiner's § 103(a) rejection of claim 40 in view of Kellner and Barker. These references disclose all the components of claim 40 in ranges that overlap or encompass the claimed ranges.

We affirm the Examiner's § 103(a) rejection of claim 39 in view of Kellner, Barker and McAtee. These references are appropriately combined and disclose or suggest all the elements of claim 39.

Lacking any argument regarding their separate patentability, we also affirm the rejection of claims 3, 6, 7, 33, and 41-43 pursuant to 37 CFR § 41.37(c)(1)(vii).

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AFFIRMED

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